Missouri Department of Natural Resources
Air Pollution Control Program

PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number:
Expiration Date:
Installation ID: 093-0009
Project Number: 093-0009-027

Installation Name and Address
The Doe Run Company-Buick Resource Recycling Facility
HC 1 Box 1395
Boss, MO 65440
Iron County

Parent Company's Name and Address
The Doe Run Company
1801 Park 270, Suite 300
St. Louis, MO 63146

Installation Description:
The installation produces secondary lead by processing vehicle and industrial batteries, lead shielding from x-ray equipment, ballistic sand from firing ranges, lead-lined television screens, lead paint chips, and other lead scrap. Battery acid is reacted with sodium carbonate to make detergent grade sodium sulfate. The source is a major emitter of sulfur dioxide (SO_2), carbon monoxide (CO), lead (Pb) and hazardous air pollutants (HAPs).

Effective Date

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The installation produces secondary lead by processing vehicle and industrial batteries, lead shielding from x-ray equipment, ballistic sand from firing ranges, lead-lined television screens, lead paint chips, and other lead scrap. Battery acid is reacted with sodium carbonate to make detergent grade sodium sulfate. The source is a major emitter of sulfur dioxide (SO_2), carbon monoxide (CO), lead (Pb) and hazardous air pollutants (HAPs). The reported pollutant emissions for the installation in the past five years are listed below.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO_x)	Nitrogen Oxides (NO_x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
1998	43.12	2591.8	120.4	14.99	70.41	15.71	11.63
1999	41.25	3339.9	129.3	15.21	72.54	10.17	10.08
2000	48.76	3482.4	67.8	9.61	7693.0	13.58	21.77
2001	54.98	3917.0	67.1	9.71	8356.4	11.23	12.88
2002	52.92	4185.2	56.7	6.28	5780.5	11.0	12.58

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emit air pollutants and which are identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit
EU0010	Blast Furnace
EU0020	Agglomeration Furnace Feed System
EU0030	Agglomeration Furnace
EU0040	Mold Pouring
EU0050	$PbCO_3$ Storage Bins
EU0060	Reverberatory Furnace Weigh Feeders
EU0070	Reverberatory Furnace Screw Feeders
EU0080	Reverberatory Furnace
EU0090	Reverberatory Furnace Dross Hopper/Grizzly
EU0100	Dross Hopper
EU0110	Rotary Melter Vibrating Feeder
EU0120	Rotary Melter
EU0130	Reclamation Furnace I
EU0140	Mold Pouring
EU0150	Wash Station
EU0160	Reclamation Furnace II
EU0170	Mold Pouring
EU0180	Refinery Dross Kettles
EU0190	Burn Kettles
EU0200	Refining/Casting/PbO Kettles
EU0210	Casting Machines
EU0220	Dross Hopper
EU0230	Blast Furnace Process Fugitives (Feed Conveyors, Blast Furnace, Settler and Transfer Pot)
EU0240	Reverberatory Furnace Process Fugitives
EU0250	Rotary Melter Furnace Process Fugitives

EU0260	Dross Plant Process Fugitives (Rotary Melter Dross Hopper, Dross and Burn Kettles, and Kettle Dross Hopper)
EU0270	Refinery Process Fugitives (Refining/Casting/PbO Kettles, Casting Machines)
EU0280	Reclamation Furnaces and Mold Pouring Process Fugitives
EU0290	Wash Station Process Fugitives
EU0300	Open Storage Fugitives (Raw Materials, and Reverberatory Furnace Slag Storage)
EU0310	Soda Ash Transfer, Industrial Battery Cutting Station, Hammer Mill, Water Screen, Hydro Separator, Soda Ash Slurry Tank, Desulfur RXN Tanks, Filter Press, Neutralize RXN Tanks
EU0320	Storage Bunker and Sulfuric Acid Collection Sump
EU0330	Resuspension Fugitives (Blast Furnace Charge Hopper, Main Conveyor, Coke Truck Load, Melter Grid Storage, Grid Hopper/Conveyor, Melter Dross Bunker, Refining Dross Bunker, Haul Roads and Soil Reclamation)
EU0340	Resuspension Fugitives (Slag Feed Hopper, Slag Conveyor, Blended Slag Conveyor, Slag Truck Loading)
EU0350	Two Chemical Storage Silos
EU0360	Pugmill Blender
EU0370	Soda Ash Unloading Surge Bin, and Sodium Sulfate Storage Silo
EU0380	Soda Ash Storage Silo
EU0390	Na_2SO_4 Crystallizer, Na_2SO_4 Feed Conveyor, Na_2SO_4 Separator
EU0400	BDC Boiler, propane fired, 40.6 MMBtu/hr
EU0410	Refinery Kettles Propane Burners, 74.4 MMBtu/hr
EU0420	Drum Shredder Feed Hopper, Drum Shredder, Conveyor/Detector
EU0430	Pallet Burning
EU0440	160 bhp Emergency diesel pump

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

- Feed Stock Truck Unloading
- Coke Receiving Hopper
- Coke Screw Conveyor
- Drosses, Midlings, Paste/Mud Drum Storage
- Shredded Drum Feed Storage Bunker
- Shredded Drum Feed Truck Loading
- Shredded Drum Scrap Metal Roll-Off
- Spent Battery Truck Unloading
- Industrial Battery Storage
- Battery Bunker
- Electrolyte Tanks
- Vibrating Feed Hopper
- Conveyor/Detector
- Scrap Metal Roll-Off
- Plastics Roll-Off
- Plastics Packaging/Shipping
- Dewatering Screen
- Hydro Separator

Powder Settler
Grids/Posts Bunker
Paste Slurry Tank
Filtrate Tank
$PbCO_3$ Refining Filter
$PbCO_3$ Paste Filter Storage
Truck Transfer
Mobile Trucks
Na_2SO_4 Solution Tank
Brine Feed Tank
Hydroclone
Centrifuge
Sodium Sulfate RR Car/Truck Loading
$PbCO_3$ Screw Conveyor
Slag Skip Hoist
Reverberatory Furnace Slag Machine
Blast Furnace Slag Storage Pile
Cable Storage
Cable Feed Systems
Washed Cable Covering Storage/Shipping
Lead Pig, Line, Block and Billet Storage/Shipping
No.2 Diesel Fuel Storage, 1,950 gallons
Unleaded Gasoline Storage, 1,950 gallons
Seven Liquid Propane Storage Tanks, 30,000 gallons each
Changehouse Boiler, 0.25 MMBtu/hr, propane fueled
Main Shop Forge, 0.25 MMBtu/hr, propane fueled
Cooling Towers, 22,000 gallons/hr
Laboratory Activities

DOCUMENTS INCORPORATED BY REFERENCE
These documents have been incorporated by reference into this permit.

1) Construction Permit No. 0179-018 January 22, 1979 Equipment replaced.
2) Construction Permit No. 0480-007 April 3, 1980 Lead mine is now a separate installation.
3) Construction Permit No. 0989-003, September 12, 1989
4) Construction Permit No. 0989-003A, August 7, 1996
5) Construction Permit No. 0792-016, July 16, 1992
6) Construction Permit No. 0493-006, April 6, 1993 Equipment dismantled.
7) Construction Permit No. 0693-013, June 10, 1993
8) Construction Permit No. 1093-003, August 29, 1993
9) Construction Permit No. 1093-010, October 17, 1993 Equipment dismantled.
10) Construction Permit No. 1095-009, September 29, 1995
11) Construction Permit No. 1296-012A, July 10, 1997 Equipment dismantled.
12) Construction Permit No. 0297-015A, July 10, 1997 Permit conditions superseded by permit 0997-006.
13) Construction Permit No. 0997-006, August 21, 1997
14) Construction Permit No. 102000-007 September 11, 2000 Temporary Permit, terminated December 31, 2000
15) Missouri State Implementation Plan for Doe Run Recycling Facility, 2000 Revision

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

Permit Condition PW001

10 CSR 10-6.220
Restriction of Emission of Visible Air Contaminants

Emission Limitation:

1. No person may discharge into the ambient air from any single source existing on February 24, 1971, any visible emissions greater than that designated as 40% opacity.
2. No person may discharge into the ambient air from any single new source constructed or modified after February 24, 1971, any visible emissions greater than that designated as 20% opacity.
3. Exception: A person may discharge into the atmosphere from any single source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions were observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
   b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
   c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

1. The permittee shall maintain records of all observation results (see Attachment A), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units,
   b) All emission units from which visible emissions occurred, and
   c) Whether the visible emissions were normal for the process
2. The permittee shall maintain records of any equipment malfunctions that result in opacity exceedances.
3. The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition.

Reporting:

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition PW002

10 CSR 10-6.170
Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

1. The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line or origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director;
2. The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
3. Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary.

Monitoring:

1. The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. If a violation of this regulation is discovered, the source shall undertake corrective action to eliminate the violation.
2. The following monitoring schedule must be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
   b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
   c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Record Keeping:

1. A log must be maintained noting the following:
   a) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
   b) Whether the visible emissions were normal for the installation.
   c) Equipment malfunctions that could cause an exceedance of 10 CSR 10-6.170.
2. Any violations of 10 CSR 10-6.170 and any corrective actions undertaken to correct the violation.
3. Attachment B contains a log including these record keeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition PW003

10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart X
National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting – Test Methods §63.547
40 CFR Part 63, Subpart A
General Provisions – Performance Testing Requirements - §63.7
40 CFR Part 60, Appendix A
Appendix A to Part 60 – Test Methods

Testing Requirements:

1. Table I of 40 CFR part63, subpart X specifies the provisions of subpart A that apply and those that do not apply to owners or operators of secondary lead smelters subject to 40 CFR part 63, subpart X. The provisions of § 63.7 apply to subpart X. (§ 63.541(b))
2. Except as provided in § 63.543(i) and § 63.544(f), following the initial test to demonstrate compliance with paragraphs §§ 63.543(a), 63.544(c) and (d), the permittee shall conduct a compliance test for lead compounds on an annual basis (no later than 12 calendar months following the previous compliance test). (§§ 63.543(h), and 63.544(e))
3. If a compliance test demonstrates a source emitted lead compounds at 1.0 milligram of lead per dry standard cubic meter (0.00044 grains of lead per dry standard cubic foot) or less during the time of the compliance test, the owner or operator of a secondary lead smelter shall be allowed up to 24 calendar months from the previous compliance test to conduct the next annual compliance test for lead compounds. (§ 63.543(i), and § 63.544(f))

Test Methods – Lead Compounds:

1. The following test methods in 40 CFR part 60, appendix A listed in §§ 63.547(a)(1) through (a)(5) shall be used to determine compliance with the emission standards for lead compounds under §§ 63.543(a), 63.544(c),and (d), and 63.545(e): (§ 63.547(a))
   a) Method 1 shall be used to select the sampling port location and the number of traverse points. (§ 63.547(a)(1))
   b) Method 2 shall be used to measure volumetric flow rate. (§ 63.547(a)(2))
   c) Method 3 shall be used for gas analysis to determine the dry molecular weight of the stack gas. (§ 63.547(a)(3))
   d) Method 4 shall be used to determine moisture content of the stack gas. (§ 63.547(a)(4))
   e) Method 12 shall be used to determine compliance with the lead compound emission standards. The minimum sample volume shall be 0.85 dry standard cubic meters (30 dry standard cubic feet) and the minimum sampling time shall be 60 minutes for each run. Three runs shall be performed and the average of the three runs shall be used to determine compliance. (§ 63.547(a)(5))

Test Methods – Total Hydrocarbons:

1. The following test methods in 40 CFR part 60, appendix A listed in §§ 63.547(b)(1) through (b)(4) shall be used, as specified, to determine compliance with the emission standards for total hydrocarbons under § 63.543(d). (§ 63.547(b))
   a) Method 1 shall be used to select the sampling port location to determine compliance under § 63.543(d). (§ 63.547(b)(1))
   b) The Single Point Integrated Sampling and Analytical Procedure of Method 3B shall be used to measure the carbon dioxide content of the stack gases to determine compliance under § 63.543(d). (§ 63.547(b)(2))

c) Method 4 shall be used to measure moisture content of the stack gases to determine compliance under § 63.543(d). (§ 63.547(b)(3))

d) Method 25A shall be used to measure total hydrocarbon emissions to determine compliance under § 63.543(d). The minimum sampling time shall be 1 hour for each run. A minimum of three runs shall be performed. A 1-hour average total hydrocarbon concentration shall be determined for each run and the average of the three 1-hour averages shall be used to determine compliance. The total hydrocarbon emissions concentrations for determining compliance under § 63.543(d) shall be expressed as propane and shall be corrected to 4 percent carbon dioxide, as described in § 63.547(c). (§ 63.547(b)(4))

2. For the purposes of determining compliance with the emission limits under § 63.543(c), the measured total hydrocarbon concentrations shall be corrected to 4 percent carbon dioxide as listed in paragraphs § 63.547(c)(1) through (c)(2) in the following manner: (§ 63.547(c))

a) If the measured percent carbon dioxide is greater than 0.4 percent in each compliance test, the correction factor shall be determined by using equation (1).

$$F = \frac{4.0}{CO_2} \qquad (1)$$

where:

F = correction factor (no units)

CO_2 = percent carbon dioxide measured using Method 3B, where the measured carbon dioxide is greater than 0.4 percent. (§ 63.547(c)(1))

b) If the measured percent carbon dioxide is equal to or less than 0.4 percent, then a correction factor (F) of 10 shall be used. (§ 63.547(c)(2))

c) The corrected total hydrocarbon concentration shall be determined by multiplying the measured total hydrocarbon concentration by the correction factor (F) determined for each compliance test. (§ 63.547(c)(3))

Test Methods – Face Velocities:

1. Compliance with the face velocity requirements under § 63.544(b) for process fugitive enclosure hoods shall be determined by the following test methods in §§ 63.547 (d)(1) or (d)(2). (§ 63.547(d))

a) Owners and operators shall calculate face velocity using the procedures in § 63.547(d)(1)(i) through § 63.547 (d)(1)(iv) of this section. (§ 63.547(d)(1))

(i) Method 1 shall be used to select the sampling port location in the duct leading from the process fugitive enclosure hood to the control device. (§ 63.547(d)(1)(i))

(ii) Method 2 shall be used to measure the volumetric flow rate in the duct from the process fugitive enclosure hood to the control device. (§ 63.547(d)(1)(ii))

(iii) The face area of the hood shall be determined from measurement of the hood. If the hood has access doors, then face area shall be determined with the access doors in the position they are in during normal operating conditions. (§ 63.547(d)(1)(iii))

(iv) Face velocity shall be determined by dividing the volumetric flow rate determined in §63.547(d)(1)(ii) by the total face area for the hood determined in paragraph § 63.547 (d)(1)(iii). (§ 63.547(d)(1)(iv))

b) The face velocity shall be measured directly using the procedures in § 63.547(d)(2)(i) through § 63.547 (d)(2)(v). (§ 63.547(d)(2))

(i) A propeller anemometer or equivalent device shall be used to measure hood face velocity. (§ 63.547(d)(2)(i))

(ii) The propeller of the anemometer shall be made of a material of uniform density and shall be properly balanced to optimize performance. (§ 63.547(d)(2)(ii))

(iii) The measurement range of the anemometer shall extend to at least 300 meters per minute (1,000 feet per minute). (§ 63.547(d)(2)(iii))

(iv) A known relationship shall exist between the anemometer signal output and air velocity, and the anemometer must be equipped with a suitable readout system. (§ 63.547(d)(2)(iv))
(v) Hood face velocity shall be determined for each hood open during normal operation by placing the anemometer in the plane of the hood opening. Access doors shall be positioned consistent with normal operation. (§ 63.547(d)(2)(v))

Test Methods – Doorway In-Draft Requirements:

1. Owners and operators shall determine compliance with the doorway in-draft requirement for enclosed buildings in § 63.544(b) using the procedures in § 63.547(e)(1) or § 63.547 (e)(2). (§ 63.547(e))
   a)(i) Owners and operators shall use a propeller anemometer or equivalent device meeting the requirements of § 63.547 (d)(2)(ii) through § 63.547 (d)(2)(iv). (§ 63.547(e)(1)(i))
   (ii) Doorway in-draft shall be determined by placing the anemometer in the plane of the doorway opening near its center. (§ 63.547(e)(1)(ii))
   (iii) Doorway in-draft shall be demonstrated for each doorway that is open during normal operation with all remaining doorways in the position they are in during normal operation. (§ 63.547(e)(1)(iii))
   b)(i) Owners and operators shall install a differential pressure gage on the leeward wall of the building to measure the pressure difference between the inside and outside of the building. (§ 63.547(e)(2)(i))
   (ii) The pressure gage shall be certified by the manufacturer to be capable of measuring pressure differential in the range of 0.02 to 0.2 mm Hg. (§ 63.547(e)(2)(ii))
   (iii) Both the inside and outside taps shall be shielded to reduce the effects of wind. (§ 63.547(e)(2)(iii))
   (iv) Owners and operators shall demonstrate the inside of the building is maintained at a negative pressure as compared to the outside of the building of no less than 0.02 mm Hg when all doors are in the position they are in during normal operation. (§ 63.547(e)(2)(iv))

Permit Condition PW004

10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart X
National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting – Monitoring Requirements §63.548
40 CFR Part 63, Subpart A
General Provisions – Monitoring Requirements - §63.8
40 CFR Part 60, Appendix A
Appendix A to Part 60 – Performance Specification 8

Monitoring Requirements:

1. Table I of 40 CFR part 63, subpart X specifies the provisions of subpart A that apply and those that do not apply to owners or operators of secondary lead smelters subject to 40 CFR part 63, subpart X. The provisions of § 63.8 apply to subpart X. (§ 63.541(b))
2. **Baghouse/Fabric Filter:** Owners and operators of secondary lead smelters shall prepare, and at all times operate according to, a standard operating procedures manual that describes in detail procedures for inspection, maintenance, and bag leak detection and corrective action plans for all baghouses (fabric filters) that are used to control process emissions from any source subject to the lead emission standards in §§ 63.543, 63.544, and 63.545, including those used to control emissions from building ventilation. This provision shall not apply to process fugitive sources that are controlled by wet scrubbers. (§ 63.548(a)) The Baghouse S.O.P. Plan is located in Attachment C of this permit.
3. The standard operating procedures manual for baghouses required by § 63.548(a) shall be submitted to the Administrator or delegated authority for review and approval. (§ 63.548(b))

4. The procedures specified in the standard operating procedures manual for inspections and routine maintenance shall, at a minimum, include the requirements of §§ 63.548(c)(1) through (c)(9) of this section. (§ 63.548(c))
   a) Daily monitoring of pressure drop across each baghouse cell. (§ 63.548(c)(1)) The pressure drop shall be recorded on Attachment D or an equivalent form.
   b) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms. (§ 63.548(c)(2))
   c) Daily check of compressed air supply for pulse-jet baghouses. (§ 63.548(c)(3))
   d) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.(§ 63.548(c)(4))
   e) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means. (§ 63.548(c)(5))
   f) Monthly check of bag tension on reverse air and shaker-type baghouses. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices. (§ 63.548(c)(6))
   g) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks. (§ 63.548(c)(7))
   h) Quarterly inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means. (§ 63.548(c)(8))
   i) Except as provided in § 63.548(h), continuous operation of a bag leak detection system. (§ 63.548(c)(9))
5. The procedures specified in the standard operating procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance. (§63.548(d))
6. The bag leak detection system required by § 63.548(c)(9) shall meet the specifications and requirements of §§ 63.548(e)(1) through (e)(8). (§ 63.548(e))
   a) The bag leak detection system must be capable of detecting particulate matter emissions at concentrations of 10.0 milligram per actual cubic meter (0.0044 grains per actual cubic foot) or less. (§ 63.548(e)(1))
   b) The bag leak detection system sensor must provide output of relative or absolute particulate matter emissions. (§ 63.548(e)(2))
   c) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in particulate emissions is detected. (§ 63.548(e)(3))
   d) The bag leak detection system shall be installed and operated in a manner consistent with available guidance from the U.S. Environmental Protection Agency or, in the absence of such guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system. (§ 63.548(e)(4))
   e) The initial adjustment of the system shall, at a minimum, consist of establishing the relative baseline output level by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time. (§ 63.548(e)(5))
   f) Following initial adjustment, the owner or operator shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the approved SOP required under paragraph (a) of this section. In no event shall the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition. (§ 63.548(e)(6))
   g) For negative pressure, induced air baghouses and positive pressure baghouses that discharge to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber. (§ 63.548(e)(7))

h) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. (§ 63.548(e)(8))

7. The standard operating procedures manual required by paragraph § 63.548(a) shall include a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan shall include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective actions taken to correct the control device malfunction or minimize emissions as specified in paragraphs §§ 63.548(f)(1) and (f)(2). (§ 63.548(f))
   a) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm. (§ 63.548(f)(1))
   b) The cause of the alarm must be alleviated by taking the necessary corrective action(s) that may include, but not be limited to, §§ 63.548(f)(2)(i) through (f)(2)(vi). (§ 63.548(f)(2))
      (i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions. (§ 63.548(f)(2)(i))
      (ii) Sealing off defective bags or filter media. (§ 63.548(f)(2)(ii))
      (iii) Replacing defective bags or filter media, or otherwise repairing the control device. (§ 63.548(f)(2)(iii))
      (iv) Sealing off a defective baghouse compartment. (§ 63.548(f)(2)(iv))
      (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system. (§ 63.548(f)(2)(v))
      (vi) Shutting down the process producing the particulate emissions. (§ 63.548(f)(2)(vi))
8. Baghouses that are used **exclusively** for the control of fugitive dust sources from any source subject to the lead emissions standard in § 63.545 are exempt from the requirement in § 63.548(c)(9) to be equipped with a bag leak detector. (§ 63.548(h))
9. **Total Hydrocarbon CEMS:** The owner or operator of a blast furnace subject to the total hydrocarbon standards in § 63.543(d) must comply with the requirements of either §§ 63.548(j)(1) or (j)(2), to demonstrate continuous compliance with the total hydrocarbon standards. (§ 63.548(j))
   a) Continuous Monitoring of Total Hydrocarbon Emissions: (§ 63.548(j)(2))
      (i) The owner or operator of a secondary lead smelter shall install, operate, and maintain a total hydrocarbon continuous monitoring system and comply with all of the requirements for continuous monitoring systems found in subpart A, General Provisions. (§ 63.548(j)(2)(i))
      (ii) Prior to or in conjunction with the initial compliance test to determine compliance with § 63.543(d), the owner or operator shall conduct a performance evaluation for the total hydrocarbon continuous monitoring system according to § 63.8(e) of the General Provisions. The monitor shall meet the performance specifications of Performance Specification 8, 40 CFR Part 60, Appendix B. (§ 63.548(j)(2)(ii))
      (iii) Allowing the 3-hour average total hydrocarbon concentration to exceed the applicable total hydrocarbon emission limit under § 63.543 shall constitute a violation of the applicable emission standard for total hydrocarbons under § 63.543(d). (§ 63.548(j)(2)(iii))

Permit Condition PW005

10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart X
National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting – Applicability §63.541(b)
40 CFR Part 63, Subpart A
General Provisions – Startup, Shutdown and Malfunction Plan - §63.6(e)
10 CSR 10-6.120
Restriction of Emissions of Lead From Specific Lead Smelter – Refinery Installations

1. Table I of 40 CFR part 63, subpart X specifies the provisions of subpart A that apply and those that do not apply to owners or operators of secondary lead smelters subject to 40 CFR part 63, subpart X. The provisions of § 63.6(a), (b), (c), (e), (f), (g), (I) and (j) apply to subpart X. (§ 63.541(b))
2. Operation and maintenance requirements. (§ 63.6(e))
   a) At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the permittee reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution practices, nor does it require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the SSMP required in § 63.6(e)(3), review of operation and maintenance records, and inspection of the source. (§ 63.6(e)(1)(i))
3. The permittee of an affected source must develop and implement a written SSMP that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan shall be developed by the permittee by the source's compliance date for 40 CFR part 63, subpart X. As required under § 63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. The plan shall be incorporated by reference into the source's title V permit The purpose of the SSMP is to - (§ 63.6(e)(3)(i))
   a) Ensure that, at all times, the permittee operates and maintains each affected source, including associated air pollution control equipment, in a manner which satisfies the general duty to minimize emissions established by § 63.6(e)(3)(i). (§ 63.6(e)(3)(i)(A))
   b) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and (§ 63.6(e)(3)(i)(B))
   c) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). (§ 63.6(e)(3)(i)(C))
4. During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the SSMP developed under § 63.6(e)(3)(i). (§ 63.6(e)(3)(ii))

5. When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSMP, the permittee shall keep records for that event that demonstrate the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of record keeping, that confirms conformance with the SSMP for that event. In addition the permittee shall keep records of these events as specified in §63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction operation and each malfunction of the air pollution control equipment. Furthermore, the permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's SSMP in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5). (§ 63.6(e)(3)(iii))
6. If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the affected source's SSMP, and the source exceeds any applicable emission limitation in the relevant emission standard, then the permittee must record the actions taken for that event and must report such actions within two working days after commencing actions inconsistent with the plan, followed by a letter within seven working days after the end of the event, in accordance with § 63.10(d)(5) (unless the permittee makes alternative reporting arrangements in advance with the Director. (§ 63.6(e)(3)(iv))
7. The permittee shall keep a current copy of the SSMP on-site at all times, and it must make the plan available upon request for inspection and copying by the Director. In addition, if the SSMP is subsequently revised as provided in § 63.6(e)(3)(viii), the permittee must maintain on-site each previous (i.e. superseded) version of the SSMP, and must make each previous version available for inspection and copying by the Director for a period of five years after revision of the plan. If at any time after adoption of a SSMP the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the permittee must retain a copy of the most recent plan for five years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Director. The Director may at any time request in writing that the permittee submit a copy of any SSMP (or a portion thereof) which is maintained at the affected source or in the possession of the permittee. Upon receipt of such a request, the permittee must promptly submit a copy of the requested plan (or portion thereof) to the Director. The Director must request that the permittee submit a particular SSMP (or a portion there of) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The permittee may elect to submit the required copy of any SSMP to the Director in an electronic format. If the permittee claims that any portion of such a SSMP is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission. (§ 63.6(e)(3)(v))
8. To satisfy the requirements to develop a SSMP, the permittee may use the affected source's standard operating procedure (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Director. (§ 63.6(e)(3)(vi))
9. Based on the results of a determination made under § 63.6(e)(1)(i), the Director may require that the permittee of an affected source make changes to the SSMP for that source. The Director must require appropriate revisions to a SSMP, if it is found that the plan: (§ 63.6(e)(3)(vii))
    a) Does not address a startup, shutdown, or malfunction event that has occurred; (§ 63.6(e)(3)(vii)(A))
    b) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by § 63.6(e)(1)(i). (§ 63.6(e)(3)(vii)(B))
    c) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable; or (§ 63.6(e)(3)(vii)(C))
    d) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2. (§ 63.6(e)(3)(vii)(D))

10. The permittee may periodically revise the SSMP for the affected source as necessary to satisfy the requirements of 40 CFR part 63 or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the permittee may make such revisions to the SSMP without prior approval by the Administrator or the permitting authority. However, each such revision to a SSMP must be reported in the semi-annual report required by § 63.10(d)(5). If the SSMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the SSMP at the time the permittee developed the plan, the permittee shall revise the SSMP within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the permittee makes any revision to the SSMP which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the permittee has provided a written notice describing the revision to the permitting authority. (§ 63.6(e)(3)(viii))
11. The title V permit for an affected source must require that the permittee adopt a SSMP that conforms to the provisions of this part, and that the permittee operate and maintain the source in accordance with the procedures specified in the current SSMP. However, any revisions made to the SSMP in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under 40 CFR part 70 or part 71. Moreover, none of the procedures specified by the SSMP for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act. (§ 63.6(e)(3)(ix))

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

EU0010 Process Emissions	
General Description:	Blast Furnace, Coke fired, 112 MMBtu/hr, 41.7 tph total feed, 8-10 % coke, 1967
Manufacturer/Model #:	McKee, FS 3140, 0.5 MMBtu/hr liquid propane fired tap
EIQ Reference # (2002)	EU8/1, Cooling Chamber & CD9 Baghouse , EP8

EU0020 Process Emissions	
General Description:	Agglomeration Feed System, 2.8 tph, 1995
EIQ Reference # (2002)	EU8/2, Cooling Chamber & CD9 Baghouse , EP8

EU0030 Process Emissions	
General Description:	Agglomeration Furnace, 2.7 tph, liquid propane fired, 10 MMBtu/hr
Manufacturer/Model #:	Doe Run, FS 5879, 1995
EIQ Reference # (2002)	EU8/3, Cooling Chamber & CD9 Baghouse , EP8

EU0040 Process Emissions	
General Description:	Mold Pouring, 2.7 tph, 1995
EIQ Reference # (2002)	EU8/4, Cooling Chamber & CD9 Baghouse , EP8

EU0050 Process Emissions	
General Description:	$PbCO_3$ Storage Bins, 15 tph
Manufacturer/Model #:	30 ton capacity, FS 3868, 1996
EIQ Reference # (2002)	EU8/6, Cooling Chamber & CD9 Baghouse , EP8

EU0060 Process Emissions	
General Description:	Reverberatory Furnace Weigh Feeders, 15 tph
Manufacturer/Model #:	Conveyor Drive, FS 3857, 1991
EIQ Reference # (2002)	EU8/7, Cooling Chamber & CD9 Baghouse , EP8

EU0070 Process Emissions	
General Description:	Reverberatory Furnace Screw Feeders, 15 tph
Manufacturer/Model #:	Conveyor Drive, FS 3880, 1991
EIQ Reference # (2002)	EU8/8, Cooling Chamber & CD9 Baghouse , EP8

EU0080	
Process Emissions	
General Description:	Reverberatory Furnace, 15 tph, liquid propane fired, 42 MMBtu/hr
Manufacturer/Model #:	J.T. Thorpe, 4385-10, 1991
EIQ Reference # (2002)	EU8/9, Cooling Chamber & CD9 Baghouse , EP8

EU0090	
Process Emissions	
General Description:	Reverberatory Furnace Hopper/Grizzly, 550 tph
Manufacturer/Model #:	Doe Run, 1988
EIQ Reference # (2002)	EU8/10, Cooling Chamber & CD9 Baghouse , EP8

EU0100	
Process Emissions	
General Description:	Dross Hopper, 15 tph, 1991
EIQ Reference # (2002)	EU8/11, Cooling Chamber & CD9 Baghouse , EP8

EU0110	
Process Emissions	
General Description:	Rotary Melter Vibrating Feeder, 10 tph
Manufacturer/Model #:	Engitec, VS-602, 1992
EIQ Reference # (2002)	EU8/12, Cooling Chamber & CD9 Baghouse , EP8

EU0120	
Process Emissions	
General Description:	Rotary Melter, 10 tph, liquid propane fired, 7 MMBtu/hr
Manufacturer/Model #:	Engitec, KL-603, 1992
EIQ Reference # (2002)	EU8/13, Cooling Chamber & CD9 Baghouse , EP8

EU0130	
Process Emissions	
General Description:	Reclamation Furnace I, 0.5 tph, liquid propane fired, 7.5 MMBtu/hr
Manufacturer/Model #:	A1-Jon, FS 8030, 1993
EIQ Reference # (2002)	EU8/14, Afterburner CD16, Cooling Chamber & CD9 Baghouse , EP8

EU0140	
Process Emissions	
General Description:	Mold Pouring, 0.5.tph, 1993
EIQ Reference # (2002)	EU8/15, Cooling Chamber & CD9 Baghouse , EP8

EU0150	
Process Emissions	
General Description:	Wash Station, 0.5 tph
Manufacturer/Model #:	Bloomsdale, FS 8030, 1993
EIQ Reference # (2002)	EU8/16, Cooling Chamber & CD9 Baghouse , EP8

EU0160	
Process Emissions	
General Description:	Reclamation Furnace II, 0.5 tph, liquid propane fired, 7.5 MMBtu/hr
Manufacturer/Model #:	A1-Jon, FS 8030, 1997
EIQ Reference # (2002)	EU8/17, Afterburner CD22, Cooling Chamber & CD9 Baghouse , EP8

EU0170	
Process Emissions	
General Description:	Mold Pouring, 0.5 tph, 1997
EIQ Reference # (2002)	EU8/18, Cooling Chamber & CD9 Baghouse , EP8

EU0180	
Process Emissions	
General Description:	Three Refinery Dross Kettles, 15 tph
Manufacturer/Model #:	American Bridge, FS 4010, 1967
EIQ Reference # (2002)	EU8/20, Cooling Chamber & CD9 Baghouse , EP8

EU0190	
Process Emissions	
General Description:	Three Burn Kettles, 15 tph
Manufacturer/Model #:	American Bridge, FS 4010, 1967
EIQ Reference # (2002)	EU8/20A, Cooling Chamber & CD9 Baghouse , EP8

EU0200	
Process Emissions	
General Description:	Ten Refining/Casting/PbO_3 Kettles, 15 tph
Manufacturer/Model #:	American Bridge, FS 3300, 1967
EIQ Reference # (2002)	EU8/21, Cooling Chamber & CD9 Baghouse , EP8

EU0210	
Process Emissions	
General Description:	Casting Machines, 30 tph, liquid propane fired, 0.87 MMBtu/hr
Manufacturer/Model #:	Worswick, FS 4070, 1967
EIQ Reference # (2002)	EU8/22, Cooling Chamber & CD9 Baghouse , EP8

EU0220	
Process Emissions	
General Description:	Dross Hopper, 15 tph, 1996
EIQ Reference # (2002)	EU8/23, Cooling Chamber & CD9 Baghouse , EP8

Permit Conditions (EU0010 through EU0220)-001

10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart X
National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting – Process Emissions
40 CFR Part 63, Subpart A
General Provisions
10 CSR 10-6.120
Restriction of Emissions of Lead From Specific Lead Smelter – Refinery Installations
40 CFR Part 60, Subpart L
Standards of Performance for Secondary Lead Smelters
10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes

Process Emission Limitations:

1. The permittee of a secondary lead smelter shall not discharge or cause to be discharged into the atmosphere from any existing, new, or reconstructed blast, reverberatory, or rotary smelting furnace any gases that contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains of lead per dry standard cubic foot). (§ 63.543(a))
2. The permittee of a secondary lead smelter with only blast furnaces shall not discharge or cause to be discharged into the atmosphere from any existing stand-alone blast furnace any gases that contain total hydrocarbons in excess of 360 parts per million by volume, expressed as propane corrected to 4 percent carbon dioxide. (§ 63.543(d))
3. The permittee of a secondary lead smelter subject to 40 CFR part 60, subpart L shall not discharge or cause to be discharged into the atmosphere from any pot furnace any gases which exhibit 10 percent opacity or greater. (§ 60.122(b))
4. The permittee shall limit lead emissions into the atmosphere from the No. 8 main stack to 540 lbs per 24 hours. (10 CSR 10-6.120(2)(C)1.)

Testing Requirements:

The permittee must comply with Permit Condition PW003, Testing Requirements.

Test Methods:

The permittee must comply with Permit Condition PW003, Test Methods – Lead Compounds and Total Hydrocarbons

Monitoring:

1. The permittee must comply with Permit Condition PW004, Monitoring – Baghouse/Fabric Filter and Hydrocarbon CEMS.
2. Check and document the pressure drop across the CD9 baghouse once per operating day to confirm normal operation of 3’ to 5” of water column.

Record Keeping:

1. The owner or operator of a secondary lead smelter shall comply with all of the record keeping requirements under § 63.10 of the General Provisions. In addition, each owner or operator of a secondary lead smelter shall maintain for a period of 5 years, records of the information listed in paragraphs §§ 63.550(a)(1), (a)(3), and (a)(5). (§ 63.550(a))

a) An identification of the date and time of all bag leak detection system alarms, their cause, and an explanation of the corrective actions taken. (§ 63.550(a)(1))
b) If an owner or operator chooses to demonstrate continuous compliance with the total hydrocarbon emission standard under § 63.543 (d) by employing the method allowed in § 63.548(j)(2), the records shall include the output from the total hydrocarbon continuous monitoring system, an identification of the periods when the 3-hour average total hydrocarbon concentration exceeded the applicable standard and an explanation of the corrective actions taken. (§ 63.550(a)(3))
c) Any record keeping required as part of the practices described in the standard operating procedures manual for baghouses required under § 63.548(a). (§ 63.550(a)(5))

2. Document all pressure drop readings on Attachment D, or its equivalent.

Reporting:

1. The owner or operator of a secondary lead smelter shall comply with all of the notification requirements of § 63.9 of subpart A, General Provisions. (§ 63.549(a))
2. The permittee shall submit the standard operating procedures manual for baghouses required under §63.548(a) to the Administrator or delegated authority along with a notification that the smelter is seeking review and approval of these plans and procedures. (§ 63.549(b))
3. The permittee shall comply with all of the reporting requirements under § 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under § 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under § 63.10(e)(3) until a request to reduce reporting frequency is approved. (§ 63.550(b))
4. In addition to the information required under § 63.10 of the General Provisions, reports required under § 63.550(b) shall include the information specified in §§ 63.550(c)(1) through (c)(4). (§ 63.550(c))
   a) The report shall include records of all alarms from the bag leak detection system specified in § 63.548(e). (§ 63.550(c)(1))
   b) The report shall include a description of the procedures taken following each bag leak detection system alarm pursuant to §§ 63.548(f)(1) and (2). (§ 63.550(c)(2))
   c) The report shall include the information specified in § 63.550(c)(3)(ii), consistent with the monitoring option selected under § 63.548(j). (§ 63.550(c)(3))
      (i) A record of the total hydrocarbon concentration, in 3-hour block averages, for those periods when the total hydrocarbon concentration being monitored pursuant to § 63.548(j)(2) exceeds the relevant limits established in § 63.543(d). (§ 63.550(c)(3)(ii))
   d) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under § 63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken. (§ 63.550(c)(4))
5. The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0230 Blast Furnace Process Fugitives				
General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref. # (2002)	Fugitive Emissions
Conveyors, Storage Building, 1967	EU10/1	Settler, 1967	EU10/2	CD9/EP10 CD9/EP8
Blast Furnace, 1967	EU8/1	Transfer Pot, 1967	EU10/3	

EU0240 Reverberatory Furnace Process Fugitives	
General Description:	Reverberatory Furnace, 15 tph, 1991
EIQ Reference # (2002)	EU8/9, CD27 Baghouse , EP72

EU0250 Rotary Melter Process Fugitives	
General Description:	Rotary Melter Furnace, 15 tph, 1992
EIQ Reference # (2002)	EU8/13, CD26 Baghouse , EP71

EU0260 Dross Plant Process Fugitives				
General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref. # (2002)	Fugitive Emissions
Rotary Melter Dross Hopper, 1992	EU11/1	Burn Kettles 1967	EU8/20A	CD9/EP11 CD9/EP8
Dross Kettles 1967	EU8/20	Dross Hopper 1996	EU8/23	

EU0270 Refinery Process Fugitives				
General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref. # (2002)	Fugitive Emissions
Refining/Casting/PbO Kettles, 1967	EU8/21	Casting Machines, 1967	EU8/22	CD9/EP12 CD9/EP8

EU0280 Reclamation Furnaces Process Fugitives				
General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref. # (2002)	Fugitive Emissions
Reclamation Furnace I, 1993	EU8/14	Mold Pouring 1993	EU8/15	CD25/EP 39
Reclamation Furnace II, 1997	EU8/17	Mold Pouring, 1997	EU8/18	CD25/EP 64

EU0290 Wash Station Fugitives	
General Description:	Wash Station, 1997
EIQ Reference # (2002):	EU 8/16, CD9/EP40, 8

Permit Conditions (EU0230 through EU0290)-001

10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart X – Process Fugitives
National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting – Process Fugitive Emissions
40 CFR Part 63, Subpart A
General Provisions
10 CSR 10-6.120
Restriction of Emissions of Lead From Specific Lead Smelter – Refinery Installations
Appendix A
Missouri State Implementation Plan for Doe Run Recycling Facility, 2000 Revision
10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes

Process Fugitive Emission Limitations:

1. Each owner or operator of a secondary lead smelter shall control the process fugitive emission sources listed in §§ 63.544(a)(1) through (a)(6) in accordance with the equipment and operational standards presented in §§ 63.544(b) and (c). (§ 63.544(a))
   a) Smelting furnaces and charging hoppers, chutes, and skip hoists; (§ 63.544(a)(1))
   b) Smelting furnaces lead taps and molds during tapping; (§ 63.544(a)(2))
   c) Smelting furnaces slag taps and molds during tapping; (§ 63.544(a)(3))
   d) Refining kettles; (§ 63.544(a)(4))
   e) Agglomerating furnace product taps. (§ 63.544(a)(6))
2. Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of §§ 63.544(b)(1), or (b)(2), or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening. (§ 63.544(b))
   a) All process fugitive enclosure hoods except those specified for refining kettles shall be ventilated to maintain a face velocity of at least 90 meters per minute (300 feet per minute) at all hood openings. (§ 63.544(b)(1))
   b) Process fugitive enclosure hoods required for refining kettles in paragraph § 63.544(a) shall be ventilated to maintain a face velocity of at least 75 meters per minute (250 feet per minute). (§ 63.544(b)(2))
3. Ventilation air from all enclosures hoods and total enclosures shall be conveyed to a control device. Gases discharged to the atmosphere from these control devices shall not contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot). (§ 63.544(c))
4. All agglomerating furnace emission vents shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot). (§ 63.544(d))
5. The enclosure hood face velocity is applicable to those process fugitive sources not located in a building ventilated to a control device. ((§ 63.544(h), Table 3, \1\)
6. The permittee shall limit fugitive lead emissions from lead production processes. The permittee shall limit production from processes that emit lead to the ambient air to the allowable amount as shown in Table IV. (10 CSR 10-6.120(2)(C)2.)

Table IV

EU0010 Blast Furnace	786 tons charged per day
EU0080 Reverberatory Furnace	500 tons charged per day
EU0120 Rotary Melter	300 tons charged per day
EU0210 Refinery Casting	648 tons lead cast per day

Testing Requirements:
The permittee must comply with Permit Condition PW003

Test Methods:
1. The permittee must comply with Permit Condition PW003, Test Methods – Lead Compounds
2. The permittee must comply with Permit Condition PW003, Test Methods – Face Velocities
3. The permittee must comply with Permit Condition PW003, Test Methods – Doorway In-Draft Requirements

Monitoring Requirements:
The permittee must comply with Permit Condition PW004, Monitoring – Baghouse/Fabric Filter.

Record Keeping:
1. The owner or operator of a secondary lead smelter shall comply with all of the record keeping requirements under §63.10 of the General Provisions. In addition, each owner or operator of a secondary lead smelter shall maintain for a period of 5 years, records of the information listed in paragraphs §63.550(a)(1), and (a)(5). (§63.550(a))
   a) An identification of the date and time of all bag leak detection system alarms, their cause, and an explanation of the corrective actions taken. (§63.550(a)(1))
   b) Any record keeping required as part of the practices described in the standard operating procedures manual for baghouses required under §63.548(a). (§63.550(a)(5))
2. The permittee shall keep records of daily process throughputs corresponding with the processes in Table IV for five years. (6.120(2)(C)3.) The Plant Operating Logs, Attachments E, or forms providing the same information can be used for this purpose.

Reporting:
1. The owner or operator of a secondary lead smelter shall comply with all of the notification requirements of §63.9 of subpart A, General Provisions. (§63.549(a))
2. The permittee shall submit the standard operating procedures manual for baghouses required under §63.548(a) to the Administrator or delegated authority along with a notification that the smelter is seeking review and approval of these plans and procedures. Owners or operators of existing secondary lead smelters shall submit this notification no later than July 23, 1997. (§63.549(b))
3. The permittee shall comply with all of the reporting requirements under §63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under §63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under §63.10(e)(3) until a request to reduce reporting frequency is approved. (§63.550(b))
4. In addition to the information required under §63.10 of the General Provisions, reports required under §63.550(b) shall include the information specified in §63.550(c)(1), (c)(2), and (c)(4). (§63.550(c))
   a) The report shall include records of all alarms from the bag leak detection system specified in § 63.548(e). (§63.550(c)(1))
   b) The report shall include a description of the procedures taken following each bag leak detection system alarm pursuant to §63.548(f)(1) and (2). (§63.550(c)(2))

c) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under §63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken. (§63.550(c)(4))

5. The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0300
Open Storage Fugitives

General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref. # (2002)	Fugitive Emissions
Raw Materials	EU13/1	Reverb Furnace Slag Building	EU13/3	EP13

EU0310
Battery Breaking and Paste Neutralization-BDC Building

General Description:	EIQ # (2002)	General Description:	EIQ # (2002)	Control Device
Soda Ash Transfer, 8 tph, 1991	EU16/1	Soda Ash Slurry Tank, 12 tph, 1991	EU16/6	Wet Scrubber CD10
Cutting Station, 18 tph, 1992	EU16/3	Four Desulfurization Tanks, 42 tph, 1991, 2001	EU16/7	
Hammer Mill, 34 tph, 1991	EU16/2	Filter Press, Engitec, FL-310, 10.5 tph, 1991	EU16/8	
Water Screen, 34 tph 1991	EU16/4	Neutralization Tanks, 5.2 tph, 1991	EU16/9	
Hydro Separator, 17 tph, 1991	EU16/5			EP16

EU0320
BDC Building, Acid Collection

General Description:	Battery Storage Bunker and Sulfuric Acid Collection Sump, 1991
EIQ Reference # (2002):	EU43/1 and EU43/2, EP43

EU0330
Resuspension Fugitives

General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref.# (2002)	Fugitive Emissions
Blast Furnace Charge Hopper, 1967	EU37/1	Melter Dross Bunker, 1992	EU37/10	EP37
Main Conveyor, 1967	EU37/2	Refining Dross Bunker, 1996	EU37/11	
Coke Truck Loading, 1991	EU37/3	Haul Roads and Soil Reclamation.	EU37/12	
Melter Grid Storage, 1992	EU37/8	Coke Receiving Hopper 1991	EU17/1	
Grid Hopper/Conveyor, 1992	EU37/9	Na_2SO_4 RR Car/Truck Load, 1991	EU68/1	

EU0340
Resuspension Fugitives

General Description:	EIQ Ref. # (2002)	General Description:	EIQ Ref. # (2002)	Fugitive Emissions
Slag Hopper 1996	EU37/4	Blended Slag Conveyor 1996	EU37/6	EP37
Slag Conveyor 1996	EU37/5	Blended Slag Truck Loading 1996	EU37/7	

Permit Conditions (EU0300 through EU0340)-001

10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart X
National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting – Fugitive Dust
40 CFR Part 63, Subpart A
General Provisions
10 CSR 10-6.120
Restriction of Emissions of Lead From Specific Lead Smelter – Refinery Installations

Fugitive Dust Sources:

1. Each owner or operator of a secondary lead smelter shall prepare and at all times operate according to a standard operating procedures manual that describes in detail the measures that will be put in place to control fugitive dust emission sources within the areas of the secondary lead smelter listed in §§ 63.545(a)(1) through (a)(5). (§ 63.545(a))
   a) Plant roadways (§ 63.545(a)(1))
   b) Battery breaking area (§ 63.545(a)(2))
   c) Furnace area (§ 63.545(a)(3)
   d) Refining and casting area (§ 63.545(a)(4))
   e) Materials storage and handling area (§ 63.545(a)(5))
2. The controls specified in the standard operating procedures manual shall at a minimum include the requirements of § 63.545(c)(1) through (c)(5). (§ 63.545(c))
   a) Plant roadways—paving of all areas subject to vehicle traffic and pavement cleaning twice per day of those areas, except on days when natural precipitation makes cleaning unnecessary or when sand or a similar material has been spread on plant roadways to provide traction on ice or snow. (§ 63.545(c)(1))
   b) Battery breaking area—partial enclosure of storage piles, wet suppression applied to storage piles with sufficient frequency and quantity to prevent the formation of dust, and pavement cleaning twice per day; or total enclosure of the battery breaking area. (§ 63.545(c)(2))
   c) Furnace area—partial enclosure and pavement cleaning twice per day; or total enclosure and ventilation of the enclosure to a control device. (§ 63.545(c)(3))
   d) Refining and casting area—partial enclosure and pavement cleaning twice per day; or total enclosure and ventilation of the enclosure to a control device. (§ 63.545(c)(4))
   e) Materials storage and handling area—partial enclosure of storage piles, wet suppression applied to storage piles with sufficient frequency and quantity to prevent the formation of dust, vehicle wash at each exit from the area, and paving of the area; or total enclosure of the area and ventilation of the enclosure to a control device, and a vehicle wash at each exit. (§ 63.545(c)(5))
3. The standard operating procedures manual shall require that daily records be maintained of all wet suppression, pavement cleaning, and vehicle washing activities performed to control fugitive dust emissions. (§ 63.545(d))
4. No owner or operator of a secondary lead smelter shall discharge or cause to be discharged into the atmosphere from any building or enclosure ventilation system any gases that contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains of lead per dry standard cubic foot). (§ 63.545(e))

Testing Requirements:

The permittee must comply with Permit Condition PW003, Testing Requirements.

Test Methods:

The permittee must comply with Permit Condition PW003, Test Methods – Lead Compounds

Monitoring:

1. The permittee must comply with Permit Condition PW004, Monitoring – Baghouse/Fabric Filter.
2. The permittee shall monitor and record the pressure drop and water flow rate of the wet scrubber during the initial test to demonstrate compliance with the lead emission limit under § 63.544(c) and § 63.545(e). (0.00087 gr/dscf) Thereafter, the permittee shall monitor and record the pressure drop and water flow rate at least once every hour and shall maintain the pressure drop and water flow rate no lower than 30 percent below the pressure drop and water flow rate measured during the initial compliance test. (§ 63.548(i))

Record Keeping:

1. The owner or operator of a secondary lead smelter shall comply with all of the record keeping requirements under § 63.10 of the General Provisions. In addition, each owner or operator of a secondary lead smelter shall maintain for a period of 5 years, records of the information listed in § 63.550(a)(4) and (6). (§ 63.550(a))
   a) Any record keeping required as part of the practices described in the standard operating procedures manual required under § 63.545(a) for the control of fugitive dust emissions. (§ 63.550(a)(4)) The Plant Operating Logs, Attachments E, the Fugitive Dust S.O.P. Plan, Attachments F, and the Work practice Manual, Attachments G are from Appendix A. of the 2000 revision of the Missouri SIP for The Doe Run Recycling Facility.
   b) The records of the pressure drop and water flow rate for the wet scrubber. (§ 63.550(a)(6)) Attachment H contains a log including these record keeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

Reporting:

1. The owner or operator of a secondary lead smelter shall comply with all of the notification requirements of §63.9 of subpart A, General Provisions. (§ 63.549(a))
2. The owner or operator of a secondary lead smelter shall comply with all of the reporting requirements under § 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under § 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under § 63.10(e)(3) until a request to reduce reporting frequency is approved. (§ 63.550(b))
3. In addition to the information required under § 63.10 of the General Provisions, reports required under § 63.550(b) of this section shall include the information specified in § 63.550(c)(6). (§ 63.550(c))
4. The reports shall contain a summary of the fugitive dust control measures performed during the required reporting period, including an explanation of the periods when the procedures outlined in the standard operating procedures manual pursuant to § 63.545(a) were not followed and the corrective actions taken. The reports shall not contain copies of the daily records required to demonstrate compliance with the requirements of the standard operating procedures manuals required under §§ 63.545(a) and 63.548(a). (§ 63.550(c)(6))
5. The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0350 Slag treatment	
General Description:	Two Chemical Storage Silos, 35 ton, 1996
Control Device:	Baghouse, CD21
EIQ Reference # (2002):	EU57/1, EP57

Permit Condition EU0350-001

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes
10 CSR 10-6.065
Operating Permits – Compliance Plan

Emission Limitations:

1. Particulate matter shall not be emitted from the surge bin/silo system in excess of that allowed by the formula; PM lb/hr = $4.10P^{0.67}$. The limit for the surge bin/silo system is 30.5 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Equipment and Operation Procedures (Compliance Plan):

1. The permittee shall install instruments to monitor the operating pressure drop across the baghouse.
2. The normal baghouse operating pressure drop range to meet the emission limitation shall be determined and reported to the APCP, Enforcement Section by July 1, 2004. Upon submittal of the baghouse operating pressure drop range, the permittee shall commence monitoring of the pressure drop outlined in the monitoring section below. Please note: the installation is subject to the other monitoring provisions, identified in the monitoring section below, while installing the equipment to monitor the pressure drop and establishing the pressure drop range.
3. The permittee shall operate the baghouse within the normal operating permit range reported to the APCP.

Monitoring:

1. Check and document pressure drop across the baghouse filters once per day.
2. Check and document the cleaning sequence of the baghouse every six (6) months.
3. Inspect bags for leaks and wear every six (6) months.
4. Replacement filters shall be kept on hand at all times and filter replacement shall be documented. The filters shall be made of fibers appropriate for the operating conditions expected to occur.
5. Inspect the structural components and ductwork for leaks and component failures semi-annually. Clean and repair as needed.
6. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations.

Record Keeping:

1. The permittee shall document all pressure drop readings on Attachment D, or its equivalent.
2. All inspections, corrective actions, and instrument calibration shall be recorded and retained for five years.

Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0360	
Slag Treatment	
General Description:	Pugmill Blender, 40 tph,
Manufacturer, Model No.:	Pugmill Systems Inc., 40 SD, 1996
EIQ Reference # (2002):	EU58/1, EP58

Permit Condition EU0360-001

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes

Emission Limitations:

1. Particulate matter shall not be emitted from the blender in excess of that allowed by the formula; PM lb/hr = $4.10P^{0.67}$. The limit for the blender is 42.5 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Record Keeping/Reporting:

1. The permittee shall maintain a copy of the Statement of Basis on-site to demonstrate that the emission unit is not emitting particulate matter in excess of 42.5 lbs/hr
2. The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0370		
Soda Ash Surge Bin & Sodium Sulfate Silo-BDC Building		
General Description:	EIQ Reference # (2002)	Control Device:
Soda Ash Unloading Surge Bin, 8 tph, 1991	EU19/1	Baghouse, CD13
Sodium Sulfate Storage Silo, 4.7 tph, 1991	EU19/2	EP19

Permit Condition EU0370-001

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes
10 CSR 10-6.065
Operating Permits – Compliance Plan

Emission Limitations:

1. Particulate matter shall not be emitted from the surge bin/silo system in excess of that allowed by the formula; PM lb/hr = $4.10P^{0.67}$. The limit for the surge bin/silo system is 22.5 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Equipment and Operation Procedures (Compliance Plan):

1. The permittee shall install instruments to monitor the operating pressure drop across the baghouse.
2. The normal baghouse operating pressure drop range to meet the emission limitation shall be determined and reported to the APCP, Enforcement Section by July 1, 2004. Upon submittal of the baghouse operating pressure drop range, the permittee shall commence monitoring of the pressure drop outlined in the monitoring section below. Please note: the installation is subject to the other monitoring provisions,

identified in the monitoring section below, while installing the equipment to monitor the pressure drop and establishing the pressure drop range.
3. The permittee shall operate the baghouse within the normal operating permit range reported to the APCP.

Monitoring:
1. Check and document pressure drop across the baghouse filters once per day.
2. Check and document the cleaning sequence of the baghouse every six (6) months.
3. Inspect bags for leaks and wear every six (6) months.
4. Replacement filters shall be kept on hand at all times and filter replacement shall be documented. The filters shall be made of fibers appropriate for the operating conditions expected to occur.
5. Inspect the structural components and ductwork for leaks and component failures semi-annually. Clean and repair as needed.
6. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations.

Record Keeping:
1. The permittee shall document all pressure drop readings on Attachment D, or its equivalent.
2. All inspections, corrective actions, and instrument calibration shall be recorded and retained for five years.

Reporting:
The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0380 Soda Ash Silo-BDC Building		
General Description:	EIQ Reference # (2002):	Control Device
Soda Ash Storage Silo, 8 tph, 1991	EU20/1	Baghouse CD14, EP20

Permit Condition EU0380-001

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes
10 CSR 10-6.065
Operating Permits – Compliance Plan

Emission Limitations:
1. Particulate matter shall not be emitted from the silo in excess of that allowed by the formula; PM lb/hr = $4.10P^{0.67}$. The limit for the soda ash silo is 16.5 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Equipment and Operation Procedures (Compliance Plan):
1. The permittee shall install instruments to monitor the operating pressure drop across the baghouse.
2. The normal baghouse operating pressure drop range to meet the emission limitation shall be determined and reported to the APCP, Enforcement Section by July 1, 2004. Upon submittal of the baghouse operating pressure drop range, the permittee shall commence monitoring of the pressure drop outlined in the monitoring section below. Please note: the installation is subject to the other monitoring provisions,

identified in the monitoring section below, while installing the equipment to monitor the pressure drop and establishing the pressure drop range.
3. The permittee shall operate the baghouse within the normal operating permit range reported to the APCP.

Monitoring:
1. Check and document pressure drop across the baghouse filters once per day.
2. Check and document the cleaning sequence of the baghouse every six (6) months.
3. Inspect bags for leaks and wear every six (6) months.
4. Replacement filters shall be kept on hand at all times and filter replacement shall be documented. The filters shall be made of fibers appropriate for the operating conditions expected to occur.
5. Inspect the structural components and ductwork for leaks and component failures semi-annually. Clean and repair as needed.
6. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations.

Record Keeping:
1. The permittee shall document all pressure drop readings on Attachment D, or its equivalent.
2. All inspections, corrective actions, and instrument calibration shall be recorded and retained for five years.

Reporting:
The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0390 Na_2SO_4 Recovery System-BDC Building			
General Description		EIQ Reference # (2002)	Control Device
Na_2SO_4 Crystallizer, Engitec, V-402, 7 tph	1991	EU18/1	Baghouse CD17 EP18
Feed Conveyor & Combustion Chamber, 7 tph, 3 MMBtu/hr,	1991	EU18/3	
Cyclone Separator, Engitec, CL-421,	1991	EU18/2	

Permit Condition EU0390-001

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes
10 CSR 10-6.065
Operating Permits – Compliance Plan

Emission Limitations:
1. Particulate matter shall not be emitted from the sodium sulfate recovery system in excess of that allowed by the formula; PM lb/hr = $4.10P^{0.67}$. The limit for the process is 24.0 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Equipment and Operation Procedures (Compliance Plan):
1. The permittee shall install instruments to monitor the operating pressure drop across the baghouse.
2. The normal baghouse operating pressure drop range to meet the emission limitation shall be determined and reported to the APCP, Enforcement Section by July 1, 2004. Upon submittal of the baghouse operating

pressure drop range, the permittee shall commence monitoring of the pressure drop outlined in the monitoring section below. Please note: the installation is subject to the other monitoring provisions, identified in the monitoring section below, while installing the equipment to monitor the pressure drop and establishing the pressure drop range.

3. The permittee shall operate the baghouse within the normal operating permit range reported to the APCP.

Monitoring:

1. Check and document pressure drop across the baghouse filters once per day.
2. Check and document the cleaning sequence of the baghouse every six (6) months.
3. Inspect bags for leaks and wear every six (6) months.
4. Replacement filters shall be kept on hand at all times and filter replacement shall be documented. The filters shall be made of fibers appropriate for the operating conditions expected to occur.
5. Inspect the structural components and ductwork for leaks and component failures semi-annually. Clean and repair as needed.
6. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations.

Record Keeping:

1. The permittee shall document all pressure drop readings on Attachment D, or its equivalent.
2. All inspections, corrective actions, and instrument calibration shall be recorded and retained for five years.

Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0400 BDC Boiler	
General Description:	Na_2SO_4 Crystallizer Boiler, liquid propane fired, 40.6 MMBtu/hr
Manufacturer, Model #:	Cleaver Brooks, D-60, 1991
EIQ Reference # (2002):	EU21/1, EP21

Permit Condition EU0400-001

10 CSR 10-3.060
Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating
10 CSR 10-6.260
Restriction of Emission of Sulfur Compounds
10 CSR 10-6.070
New Source Performance Regulations
40 CFR Part 60, Subpart Dc
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generators

Emission Limitation:

1. The permittee shall not emit particulate matter in excess of 0.26 pounds per million BTU of heat input. (10-3.060(5)(B))

2. No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period. (10-6.260(5)(B)1.)
3. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. (10 CSR 10-6.260(4) and 10 CSR 10-6.010 Ambient Air Quality Standards)[1]

Pollutant	Concentration by Volume	Remarks
a) Sulfur Dioxide (SO_2)	0.03 parts per million (ppm)	Annual arithmetic mean
	0.14 ppm (365 micrograms per cubic meter ($\mu g/m^3$)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 $\mu g/m^3$)	3-hour average not to be exceeded more than once per year
b) Hydrogen Sulfide (H_2S)	0.05 ppm (70 $\mu g/m^3$)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 $\mu g/m^3$)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
c) Sulfuric Acid (H_2SO_4)	10 $\mu g/m^3$	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 $\mu g/m^3$	1-hour average not to be exceeded more than once in any 2 consecutive days

Monitoring/Record Keeping:

1. The permittee shall maintain a copy of the Statement of Basis on-site to demonstrate compliance with the particulate and sulfur dioxide limits.
2. This steam generating unit for which construction, modification, or reconstruction commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 MM Btu/hr or less, but greater than or equal to 10 MM Btu/hr., shall record and maintain records of the amount of liquefied propane combusted during each day. (§§ 60.48c(a) and (g)). Attachment I or a similar form may be used for this purpose.

Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by these regulations, or any malfunction which causes a deviation from or exceedance of these regulations.

[1] 10 CSR 10-6.260(4) is a state-only requirement

EU0410 Refinery Kettle Burners	
General Description:	16 Kettle Burners, propane fired, 74.4 MMBtu/hr total
Manufacturer, Model #:	Eclipse, 1967
EIQ Reference # (2002):	EU22/1 – 28/1, EP22 – 28

Permit Condition EU0410-001

10 CSR 10-3.060
Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

1. The permittee shall not emit particulate matter in excess of 0.39 pounds per million BTU of heat input.
2. The permittee shall only burn liquid propane fuel.

Monitoring/Record Keeping/Reporting:

1. The permittee shall maintain a copy of the Statement of Basis on-site to demonstrate that the emission unit is not emitting particulate matter in excess of 0.39 lbs/MMBtu.
2. The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Conditions (EU0010, EU0050 through EU0120, EU0310, EU0320 and EU0370 through EU0400)-002

10 CSR 10-6.060
Construction Permits Required – Construction Permit No. 0989-003A
10 CSR 10-6.260
Restriction of Emission of Sulfur Compounds

Emission Limitation:

1. Condition 1. Sulfur Dioxide (SO_2) in the exit flue gas of the main baghouse stack no. 8 shall remain less than 500 ppm, two-hour block averaging.
2. Sulfur Dioxide emissions shall not exceed 8,650 lbs SO_2 per hour. (10 CSR 10-6.260(6))
3. Condition 6. The maximum annual production rate from the rotary smelting furnace shall not exceed 42,150 tons of lead bullion per 12-month period. Control devices shall be in place and utilized at all times that the furnace is in use. The control devices shall capture at least 99.2 percent of direct and fugitive particulate emissions from the rotary furnace operation.
4. Condition 7. The maximum annual production rate from the reverberatory furnace shall not exceed 60,000 tons of lead bullion per consecutive 12-month period. Further, control devices shall be in place and utilized at all times that the reverberatory furnace is in use. Said control devices shall capture at least 99.2 percent of direct and fugitive particulate emissions from the reverberatory furnace operation.
5. Condition 8. The maximum production rate from the blast furnace operating on secondary feed shall be 400 tons per day, not to exceed 41,500 tons during any consecutive 12-month period. Further, control devices shall be in place and utilized at all times that the blast furnace is in use and shall be capable of removing at least 98.4 of the particulate matter resulting from the operation of the blast furnace. Said control devices shall capture both direct and fugitive emissions resulting from the operation of the blast furnace and shall achieve control efficiencies of at least 98.4 percent for direct emissions and at least 99.2 percent for fugitive emissions.

6. Condition 9. The control devices associated with the desulfurization area shall achieve control efficiencies of at least 98 percent, and shall be in place and utilized at all times that the equipment in the desulfurization area is in use.
7. Condition 10. The crystallization boiler shall be operated only on liquefied petroleum fuel and in such a manner that no more than 2,240,000 gallons of the fuel are combusted annually.
8. Condition 11. The control devices associated with the battery breaking area shall achieve control efficiencies of at least 99 percent, and shall be in place and utilized at all times that the ventilated equipment in the battery breaking area is in use.
9. Condition 12. The sodium sulfate silo shall be equipped with control devices to be utilized at all times that the sodium sulfate silo is in use. Said control devices shall remove at least 99 percent of the direct and fugitive particulate matter resulting from the loading and unloading of the silo.
10. Condition 13. The soda ash silo shall be equipped with control devices to be utilized at all times that the soda ash silo is in use. The control devices shall remove at least 99 percent of the direct and fugitive particulate matter resulting from the loading and unloading of the silo.
11. Condition 14. The particulate emissions from the reverberatory furnace, used to produce semi-soft lead, and the blast furnace, used to produce hard lead, shall be controlled with a baghouse. Performance testing in accordance with 10 CSR 10-6.030 Sections 1 through 5 shall determine whether the furnace complies with 10 CSR 10-6.400.

Operational Limitation:

Condition 5. The secondary lead smelting reverberatory furnace shall not be operated until the battery paste has been processed through the sulfur recovery unit.

Monitoring:

1. Condition 2. A Continuous Emissions Monitoring System (CEMs) to monitor the emissions of SO_2 shall be installed, calibrated, and maintained to demonstrate compliance with Condition 1. The CEMs sampling probe shall be located in the exit flue gas stream of the secondary process.
    a) Certification of the CEMs shall be in accordance with 40 CFR part 60 Appendix B, Performance Specification 2 and Section 60.13 as is pertinent to SO_2 continuous monitors as adopted by reference in 10 CSR 10-6.070.
    b) The span of the continuous monitor shall be set at a SO_2 concentration of 0.20% by volume.
    c) For the purpose of the SO_2 CEMS performance evaluation, the reference method in Performance Specification 2 shall be Reference Method 6, 10 CSR 10-6.030(6). For this method, the minimum sampling time is 20 minutes and the minimum volume is 0.02 dscm for each sample. Samples are taken at 60 minute intervals and each sample represents a one hour average.

Record Keeping/Reporting:

1. Condition 3.
    a) The permittee shall submit a written report of excess SO_2 emissions to the director within 30 days following the end of the quarter.
    b) Each quarterly report shall contain the magnitude in parts per million of each two-hour arithmetic average of SO_2 emissions greater than the allowable rate specified under Condition 1.
    c) Each report shall identify each period during which the CEMs was inoperative, except for zero and span checks, and the repairs and adjustments performed to make the system operative.
    d) Each report also shall contain a statement that no excess emissions occurred during the quarter, except as reported or during periods when the CEMs was inoperative. Data reduction and conversion procedures shall conform to the provisions of 40 CFR part 60, §60.13(h), and §60.45(e) and (f).
    e) The permittee is required to maintain the following information for five years from the date of the quarterly report:

(i) All information reported in the quarterly reports.
(ii) All other data collected by the CEMs necessary to convert the monitoring data to the units of the applicable emission limitation.
(iii) All CEMs performance evaluations.
(iv) All CEMs or monitoring device calibration checks.
(v) Monitoring system, monitoring device, and performance testing measurements.
(vi) Adjustments and maintenance performed on these systems or devices.
(vii) Such files shall be available for inspection by Department of Natural Resources' personnel.

2. The permittee shall report both total monitor operating time and total source operating time for each reporting period.
3. Condition 8a. The permittee shall keep production logs detailing monthly production and the 12-month rolling total. The records shall be retained for the previous five years. Attachment J or an equivalent form shall be used for this purpose. This information shall be made immediately available for inspection to the Department of natural Resources' personnel upon request. These records shall clearly indicate the production of lead bullion in tons, segregated by type of furnace.
4. The permittee shall maintain monthly and annual records of the amount of liquefied propane combusted in the crystallization boiler. Attachment K or an equivalent form shall be used for this purpose.
5. Condition 8b. The permittee shall report to the APCP Enforcement Section, no later than ten days after the end of the month, if the 12-month cumulative totals show that the rotary smelting furnace, blast furnace or reverberatory furnace exceed the limits of Conditions 6., 7., or 8., or no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Conditions (EU0020 through EU0400)-002

10 CSR 10-6.060
Construction Permits Required – Construction Permit No. 1095-009

Emission Limitation:
Condition 1. Emission controls proposed for the agglomeration furnace shall be well maintained and used at all times that the furnace is in operation. The controls include the main baghouse, a hood at the furnace tapping point, and all associated ductwork necessary to tie the exhaust gases into the existing exhaust system.

Permit Conditions (EU0160 and EU0170-002

10 CSR 10-6.060
Construction Permits Required – Construction Permit No. 0997-006

Emission Limitations:
1. Condition 1. The permittee shall not discharge into the atmosphere from Reclamation Furnace and Mold Pouring Station II, Emission Units (EU00160 and EU0170) and from the equipment/processes permitted in Emission Units EU0020 through EU0040 (CP No. 1095-009), Emission Units EU0130 and EU0140 (CP No. 0693-013), Emission Unit EU0150 (CP No. 1093-003), Emission Units EU0340 through EU0360 (CP No. 0297-015A), and Emission Unit EU0420 (CP No. 0792-016) combined pollutants in any consecutive 12-month period equal to or greater than the following amounts in tons per year (tpy):

Particulate matter less than ten microns	(PM_{10})	15	(tpy)
Sulfur Oxides	(SO_x)	40	(tpy)
Nitrogen Oxides	(NO_x)	40	(tpy)
Volatile Organic Compounds	(VOC)	40	(tpy)

Carbon Monoxide	(CO)	100	(tpy)
Lead	(Pb)	0.6	(tpy)
Hazardous Air Pollutants	(HAPs)	10/25	(tpy)
Hydrogen Sulfide	(H_2S)	10	(tpy)

2. Condition 5. If a continuing situation of demonstrated nuisance odors exists in violation of 10 CSR 10-3.090, *Restriction of Emission of Odors,* the Director may require the Doe Run Company to submit a corrective action plan within ten days adequate to timely and significantly mitigate the odors. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.

Monitoring:

1. Condition No. 4. All air pollution control equipment associated with the sweat furnace must be in use at all times when the sweat furnace is in operation and shall be operated and maintained in accordance with the manufacturer's specifications. The permittee shall maintain an operating and maintenance log for pollution control equipment which shall include the following:
   a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions.
   b) Maintenance activities, with inspection schedule, repair actions, and replacements.
   c) Any deviations from the manufacturer's instructions and guidelines of operations.

Record Keeping:

1. Condition No. 2. The permittee shall maintain an accurate record of emissions of PM_{10}, SO_x, NO_x, VOC, CO, Pb, HAPs, and H_2S in tons from Reclamation Furnace and Mold Pouring Station II, Emission Units (EU00160 and EU0170) and from the equipment/processes permitted in Emission Units EU0020 through EU0040 (CP No. 1095-009), Emission Units EU0130 and EU0140 (CP No. 0693-013), Emission Unit EU0150 (CP No. 1093-003), Emission Units EU0340 through EU0360 (CP No. 0297-015A), and Emission Unit EU0420 (CP No. 0792-016). The permittee shall record the monthly and the sum of the most recent 12-month emissions in tons from the list of the above emission units. Attachments L are suitable for this purpose.
2. These records shall be kept on-site for five years, and shall be made immediately available to the Department of Natural Resources' personnel upon request.

Reporting:

Condition 3. The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month if the 12-month cumulative total (Condition 2) records show that the source exceeded the limitations of Condition 1. or any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Conditions (EU0340 through EU0360)-002

10 CSR 10-6.060

Construction Permits Required – Construction Permit No. 0297-015A , Construction Permit No. 0297-015

Emission Limitations and Monitoring:

1. Condition 21. At all times when the slag treatment system is in operation, the permittee shall use and maintain in accordance with the manufacturer's instructions and guidelines of operations all equipment that controls the emissions of any regulated pollutant (e.g. paper filters, cyclones, enclosures around air

emission sources, baghouses, water/surfactant spray equipment). The permittee shall maintain an operating and maintenance log for all air pollution control equipment which shall include the following:

a) The manufacturer's instructions and guidelines of operation.
b) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions.
c) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
d) Any deviations from the manufacturer's instructions and guidelines of operation.

2. Condition 22. If a continuing situation of demonstrated nuisance odors exists in violation of 10 CSR 10-3.090, *Restriction of Emission of Odors,* the Director may require the permittee to submit a corrective action plan within ten days adequate to timely and significantly mitigate the odors. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.

Record Keeping and Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition EU0310-003

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes

Emission Limitations:

1. Particulate matter shall not be emitted from the BCD Wet Scrubber system in excess of that allowed by the formula, PM lb/hr = $55.0P^{0.11} - 40$. The limit for the scrubber system is 57.4 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Operation Limitation:

1. Pressure drop across the scrubber shall be no less than 18 inches of water drop.
2. Scrubbing liquid flow rate shall be no less than 30 gallons per minute.
3. The permittee shall calibrate, maintain and operate the instrumentation and scrubber according to the manufacturer's specifications and recommendations.

Monitoring:

1. Monitor the scrubber pressure once per day.
2. Monitor the liquid flow rate at the pump discharge continuously.
3. Maintain a written record of all inspections, maintenance, calibration and any action resulting from these actions.

Record Keeping:

1. The permittee shall document all operational readings on Attachment H, or its equivalent.
2. All inspections, corrective actions, and instrument calibration shall be recorded.
3. Records may be kept in either written or electronic form and shall be retained for five years.

Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0420 Drum Shredder System-BDC Building		
General Description:	EIQ Reference # (2002):	Control Device
Shredder Feed Hopper, 7 tph, 1992	EU31/1	Baghouses CD11 and CD15 EP31
Drum Shredder, Saturn, 62-40HT, 7 tph, 1992	EU31/2	
Conveyor/Metal Detector, 7 tph, 1992	EU31/3	

Permit Condition EU0420-001

10 CSR 10-6.400
Restriction of Emissions of Particulate Matter From Industrial Processes
10 CSR 10-6.065
Operating Permits – Compliance Plan
10 CSR 10-6.060
Construction Permits Required – Construction Permit No. 0792-016

Emission Limitations:

1. Particulate matter shall not be emitted from the shredder system in excess of that allowed by the formula; PM lb/hr = $4.10P^{0.67}$. The limit for the shredder system is 31.5 lb PM/hr.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Equipment and Operation Procedures (Compliance Plan):

1. Condition 1. Emissions from the operation of this steel drum shredder/chipper system shall be controlled with a baghouse. The baghouse shall be kept in good repair, and shall be operational and in use at any time that the shredder system is in use. An adequate supply of bags shall be kept on-site at all times.
2. The permittee shall install instruments to monitor the operating pressure drop across the baghouses.
3. The normal baghouse operating pressure drop range to meet the emission limitation shall be determined and reported to the APCP, Enforcement Section by July 1, 2004. Upon submittal of the baghouse operating pressure drop range, the permittee shall commence monitoring of the pressure drop outlined in the monitoring section below. Please note, the installation is subject to the other monitoring provisions, identified in the monitoring section below, while installing the equipment to monitor the pressure drop and establishing the pressure drop range.
4. The permittee shall operate the baghouse within the normal operating permit range reported to the APCP.

Monitoring:

1. Check and document pressure drop across the baghouse filters once per day.
2. Check and document the cleaning sequence of the baghouses every six months.
3. Inspect bags for leaks and wear every six months and document filter replacement.
4. Inspect the structural components and ductwork for leaks and component failures semi-annually. Clean and repair as needed.
5. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations.

Record Keeping:

1. The permittee shall document all pressure drop readings on Attachment D or its equivalent.
2. All inspections, corrective actions, and instrument calibration shall be recorded and retained for five years.

Reporting:
The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0430 Pallet Burning	
General Description:	Pallet Burning, 1.25 tph, 1993
Control Device:	Open Trench with an Air Curtain Destructor, CD24
EIQ Reference # (2002):	EU44/1, EP44

Permit Condition EU0430-001

10 CSR 10-3.030
Open Burning Permit Restrictions

Emission Limitations:
Condition 7. No opacity greater than 10% shall be emitted from the operation of this burning process, except during a 30-minute start up period when the opacity may not exceed 40%.

Operational Limitations:
1. Condition 1. Only untreated wood waste that is exempt from regulation as solid waste may be burned.
2. Condition 2. No burning shall take place within 200 yards of any dwelling.
3. Condition 3. All burning shall take place between 7:00 a.m. and 4:00 p.m., Monday through Friday.
4. Condition 4. Appropriate fire fighting equipment shall be kept on hand at all times.
5. Condition 5. A copy of the burning permit shall be delivered to the local fire protection authority prior to initiation of any burning and the permit will become effective upon approval of that authority.
6. Condition 10. This permit shall expire December 21, 2004, and can be extended for one year only upon written request.

Monitoring:
1. Condition 6. All burning shall be done under the supervision of installation employees, agents or assigns.
2. Condition 8. In the event any complaint is received by the permittee or the Department of Natural Resources, all burning shall be suspended until that complaint has been resolved.

Record Keeping:
1. Condition 9. At a minimum, the following records shall be kept in an operation log on site for five years and shall be made available to the Department of Natural Resource's personnel upon request:
   a) The start date and time and the end date and time for each burning operation.
   b) The total weight in pounds of all materials burned during each day of operation.
   c) A narrative summary of any complaints received.
   d) A record of any malfunction.

Reporting:
Condition 11. If any of these conditions or any rule or regulation of the Department of Natural Resources is violated, this permit is automatically terminated.

EU0440 Emergency Diesel Water Pump	
General Description:	160 BHP Emergency Diesel Water Pump, 1000 GPM
Manufacturer,	Fairbanks – Morse, Model 5824F, 1987
EIQ Reference # (2002):	EU69/1, EP69

Permit Condition EU0440-001

10 CSR 10-6.260
Restriction of Emission of Sulfur Compounds

Operation Limitation:

1. The permittee shall not operate the emergency water pump in excess of 500 hours in any consecutive twelve month period.
2. The emergency water pump shall be operated with No. 2 Fuel Oil only.
3. The sulfur content of the fuel oil shall not exceed 0.5% by weight.

Emission Limitation:

1. Emissions from this source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/m3) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
2. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. (10 CSR 10-6.260(4) and 10 CSR 10-6.010 Ambient Air Quality Standards)[1]

Pollutant	Concentration by Volume	Remarks
a) Sulfur Dioxide (SO_2)	0.03 parts per million (ppm)	Annual arithmetic mean
	0.14 ppm (365 micrograms per cubic meter ($\mu g/m^3$)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 $\mu g/m^3$)	3-hour average not to be exceeded more than once per year
b) Hydrogen Sulfide (H_2S)	0.05 ppm (70 $\mu g/m^3$)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 $\mu g/m^3$)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
c) Sulfuric Acid (H_2SO_4)	10 $\mu g/m^3$	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 $\mu g/m^3$	1-hour average not to be exceeded more than once in any 2 consecutive days

Monitoring/Record Keeping:

1. Sulfur dioxide emissions shall be monitored by retaining fuel receipts of the No. 2 fuel oil combusted in the emergency water pump.
2. Monthly records of hours of operation shall be kept, including a calculated total for every consecutive twelve-month period of time. Attachment M, or a similar form, shall be used for this purpose.

Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

IV. Core Permit Requirements

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

10 CSR 10-6.050, *Start-up, Shutdown and Malfunction Conditions*

(a.) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days in writing the following information:
- (1.) Name and location of installation;
- (2.) Name and telephone number of person responsible for the installation;
- (3.) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
- (4.) Identity of the equipment causing the excess emissions;
- (5.) Time and duration of the period of excess emissions;
- (6.) Cause of the excess emissions;
- (7.) Air pollutants involved;
- (8.) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
- (9.) Measures taken to mitigate the extent and duration of the excess emissions; and
- (10.) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.

(b.) The permittee shall submit the paragraph (a.) information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.

(c.) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph (a.) list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

(d.) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.

(e.) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060, *Construction Permits Required*

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065, *Operating Permits*

The permittee shall file for renewal of this operating permit no sooner than eighteen months, nor later than six months, prior to the expiration date of this operating permit. The permittee shall retain the most current operating permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

10 CSR 10-6.110, *Submission of Emission Data, Emission Fees and Process Information*

(a.) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.

(b.) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.

(c.) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130, *Controlling Emissions During Episodes of High Air Pollution Potential*

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150, Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.180, *Measurement of Emissions of Air Contaminants*

(a.) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.

(b.) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.

(c.) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.030, *Open Burning Restrictions*

(a.) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.

(b.) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.

(c.) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:

(1.) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the

type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;

(2.) The schedule of burning operations;

(3.) The exact location where open burning will be used to dispose of the trade wastes;

(4.) Reasons why no method other than open burning is feasible; and

(5.) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.

(d.) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt The Doe Run Company-Buick Resource Recycling Division from the provisions of any other law, ordinance or regulation.

(e.) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-3.090, *Restriction of Emission of Odors*

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

10 CSR 10-6.100, *Alternate Emission Limits*

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*
40 CFR Part 61 Subpart M, National Emission Standard for Asbestos

(a) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

(b) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250, *Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements*

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82, *Protection of Stratospheric Ozone*

(a.) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  (1.) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
  (2.) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  (3.) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
  (4.) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

(b.) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
  (1.) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  (2.) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  (3.) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  (4.) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  (5.) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  (6.) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

(c.) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

(d.) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280, *Compliance Monitoring Usage*

a) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
  1) Monitoring methods outlined in 40 CFR Part 64;
  2) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  3) Any other monitoring methods approved by the director.

b) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
   1) Monitoring methods outlined in 40 CFR Part 64;
   2) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
   3) Compliance test methods specified in the rule cited as the authority for the emission limitations.

c) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
   1) Applicable monitoring or testing methods, cited in:
      - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
      - 10 CSR 10-6.040, "Reference Methods";
      - 10 CSR 10-6.070, "New Source Performance Standards";
      - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
   2) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

Permit Duration
10 CSR 10-6.065(6)(C)1.B.

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

General Record Keeping and Reporting Requirements
10 CSR 10-6.065(6)(C)1.C

I) Record Keeping
   A) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
   B) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.

II) Reporting
   A) The permittee shall submit a report of all required monitoring by:
      1) October 1st for monitoring which covers the January through June time period, and
      2) April 1st for monitoring which covers the July through December time period.
      3) Exception: Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
   B) Each report must identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
   C) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102.
   D) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
      1) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if you wish to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and that you can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
      2) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
      3) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in the permit.
      4) These supplemental reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

E) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
F) The permittee may request confidential treatment of information submitted in any report of deviation.

Risk Management Plans Under Section 112(r)
10 CSR 10-6.065(6)(C)1.D.

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:
1) June 21, 1999;
2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
3) The date on which a regulated substance is first present above a threshold quantity in a process.

Severability Clause
10 CSR 10-6.065(6)(C)1.F.

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

General Requirements
10 CSR 10-6.065(6)(C)1.G

1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, will not stay any permit condition.
4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

Incentive Programs Not Requiring Permit Revisions
10 CSR 10-6.065(6)(C)1.H.

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

Reasonably Anticipated Operating Scenarios
10 CSR 10-6.065(6)(C)1.I.

None Requested.

Emissions Trading
10 CSR 10-6.065(6)(C)1.J.

None Requested.

Compliance Requirements
10 CSR 10-6.065(6)(C)3.

I) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
II) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
   A) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
   B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   C) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
   D) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
III) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
   A) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
   B) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
IV) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
   A) The identification of each term or condition of the permit that is the basis of the certification,

B) The current compliance status, as shown by monitoring data and other information reasonably available to the installation,
C) Whether compliance was continuous or intermittent,
D) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period, and
E) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

Permit Shield
10 CSR 10-6.065(6)(C)6.

I) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
A) The applicable requirements are included and specifically identified in this permit; or
B) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
II) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
A) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
B) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
C) The applicable requirements of the acid rain program,
D) The administrator's authority to obtain information, or
E) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

Emergency Provisions
10 CSR 10-6.065(6)(C)7.

I) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7. shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
A) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
B) That the installation was being operated properly,
C) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
D) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

II) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Operational Flexibility
10 CSR 10-6.065(6)(C)8.

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not

Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program and the Administrator at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that established an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

I) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
   A) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program and to the Administrator, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and this agency shall place a copy with the permit in the public file. Written notice shall be provided to the administrator and this agency at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, The permittee shall provide notice to the administrator and the permitting authority as soon as possible after learning of the need to make the change.
   B) The permit shield shall not apply to these changes.

Off-Permit Changes
10 CSR 10-6.065(6)(C)9.

I) Except as noted below, The permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
   A) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; The permittee may not change a permitted installation without a permit revision, if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
   B) The permittee must provide written notice of the change to the permitting authority and to the administrator no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under paragraph (6)(B)3. of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
   C) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
   D) The permit shield shall not apply to these changes.

Responsible Official
10 CSR 10-6.020(2)(R)12.

The application utilized in the preparation of this was signed by Jerry Pyatt, General Manager who was replaced by Mr. Mike Sankovitch, General Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted

within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

Reopening Permit For Cause
10 CSR 10-6.065(6)(E)6.
In accordance with 10 CSR 10-6.065(6)(E)6.A., this permit may be reopened with cause if:
1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
2) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
5) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

Statement of Basis
10 CSR 10-6.065(6)(E)1.C.

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

Attachment A

Opacity Emission Observations

Date	Time	Visible Emissions				Abnormal Emissions		Sign-ature
		Emission Source	Normal	Less Than	Greater Than	Cause	Corrective Action	

Attachment B

Fugitive Emission Observations

Date	Time	Visible Emissions					Abnormal Emissions		Initial
		Beyond Boundary		Less than Normal	Normal	Greater Than Normal	Cause	Corrective Action	
		No	Yes						

Attachment C

MACT

BAGHOUSE S.O.P. PLAN

Page 1

I. INTRODUCTION

This plan is submitted in accordance with the secondary lead smelter MACT standard provisions, specifically 40 CFR 63.548, which requires the preparation and use of a standard operating procedures manual for all baghouses used to control process, process fugitive, or fugitive dust emission sources.

The Doe Run Resource Recycling Facility has one baghouse system which falls under this requirement. The applicable processes, which are ventilated through this system, are as follows:

Blast Furnace, Reverberatory Furnace, Rotary Melter, Smelting Furnace Skip Hoists, Smelting Furnace Lead Taps, Smelting Furnace Slag Taps, Refining kettles, and Agglomerating Furnace Taps.

The baghouse system is a Wheelabrator (FS#5040) positive-pressure unit designed at 350,000 scfm with 14 individual compartments each containing 416 bags. Three major ventilation trunk lines feed the system which include the Blast Furnace, Reverberatory Furnace, and the remaining processes including industrial hygiene ventilation points. The system is maintained by a two-man crew with additional support from maintenance personnel and electricians when needed.

II. INSPECTION/MAINENANCE PROCEDURES

At a minimum, the baghouse crew will enter one compartment on a daily basis to visually inspect both shakers and conditions of the bags themselves. Additionally, shakers are checked in other compartments from the outside primarily inspecting to ensure that they are operating properly. Primary areas inspected include bolts, bearings, couplings, and u-belts. Specific provisions for maintenance and inspection under 40 CFR 63.548(c) include:

(1) Daily monitoring of pressure drop across the entire baghouse. It is not possible to measure the pressure drop across each individual cell due to the fact that the system is a positive-pressure system with a common exhaust plenum. An acceptable pressure drop is 3-5". Pressure drop below this range normally depicts a problem with the shaker mechanisms. A confined space entry permit is used to document all entries into the baghouse.

(2) Daily confirmation that dust is removed from the hoppers is verified by operation of an adjoining dust agglomeration furnace which processes all baghouse dust into ½ ton lead molds. This furnace operates continually and the amount of dust processed is logged on plant operating logs. Additionally, the hoppers are checked each time baghouse personnel enter the compartments.

(3) Not an applicable provision. (Shaker-Type Baghouse)

(4) Methodology for monitoring cleaning cycles is part of the daily checks, which include proper operation of the shaking mechanisms and proper draft in the system.

(5) Daily checks of all bag cleaning mechanisms is conducted to ensure all bearings, couplings, and bolts are in proper working order on the shaker system.

Attachment C

Page 2

(6) Not an applicable provision. (Spring-Loaded Devices)

(7) Baghouse interior is inspected on a daily basis as well. Repairs are made when excess buildup of dust occurs in hoppers or when mechanical problems occur.

(8) Fans are inspected visually on a daily basis. Sandblasting to clean fan surface is conducted by the baghouse crew and verification to reinstall/utilize fan is provided by maintenance department. Preventative maintenance is conducted monthly on all fans.

Record keeping for all daily maintenance /inspection activities is entered via portable computer at the baghouse operation office. A Lotus spreadsheet program tracks the activity for each compartment identifying the condition of shakers, hoppers and screw, number of bags replaced, and the daily pressure drops for the entire system. Backup copies of the computer hard drive will be made on a periodic basis and kept in the environmental department office.

III. BAG LEAK DETECTION SYSTEM

The operation will utilize a PCME Dustalert 90 monitor for bag leak detection. The electrodynamic unit will utilize two sensor probes which are run eight feet vertically in the exhaust plenum to ensure representative monitoring of the exhaust gas stream. The monitor meets the requirements of §§ 63.548(e)(1) through (e)(9) as denoted in the attached data sheet for the monitoring system.

IV. CORRECTIVE ACTION PROCEDURES

Any alarms initiated from the bag leak detection system will be instantaneously recorded in the system's datalogger denoting date and time of occurrence. An audible alarm will be initiated to alert the baghouse crew of a possible leak with the baghouse bags. The alarm system is designed to isolate two compartments simultaneously where the leak has occurred. The baghouse crew will then seal off the two compartments and check each individually until the source of the leak has been identified. Once the problem has been corrected the compartment of concern will be returned to service.

Attachment D

Baghouse Pressure Drop Readings

Date	Emission Unit No.	Control Device No.	Pressure Drop	Date	Emission Unit No.	Control Device No.	Pressure Drop

Attachment E
Page 1

Daily Production Report (All Weights in Tons)

Date:_____

BDC AREA

BREAKER OP. TIME (MIN)
CENTRIFUGE OP. TIME (MIN)
SULFURIZED PASTE PROCESSED
SLI BATTERIES PROCESSED
IND BATTERIES PROCESSED
POSTS & GRIDS PRODUCED
POLYPROPYLENE PRODUCED
SEPARATORS PRODUCED
PASTE PRODUCED
SODIUM SULFATE PRODUCED
EST. Na_2SO_4 INV.

P&G

LOADED SALT

REVERBERATORY FURNACE

OPERATING TIME
LEAD PRODUCED
SLAG PRODUCED
TOTAL FEED CHARGED
PASTE CHARGED
SULF. PASTE CHARGED
REF DROSS CHARGED
SEPARATORS CHARGED
POSTS & GRIDS CHARGED
PLATES CHARGED
REF. DROSS TO STOCK

SEPARATORS
CHARGED

ROTARY MELTER

OPERATING TIME
FEED

LEAD PRODUCED
DROSS PRODUCED

SILICA/PEA GRAVEL
HERKY SLAG
SH DROSS

SINTER
BRICK FINES
S STEEL

BLAST FCE-CHARGED

LEAD PRODUCED
SLAG PRODUCED
OPERATING TIME
LEAD IN REFINERY

LEAD CAST

SEPARATORS

R4900 5.25 YUASA, 176 BNDL
R4895 9% YUASA, 183 BNDL

Attachment E

Page 2

SWEAT FURNACE LEAD PRODUCTION REPORT

DATE_____

	TOLL	DOERUN
LEAD LBS	_____	_____
BLOCKS	_____	_____
DROSS LBS	_____	_____
ASH LBS	_____	_____

DROSS = + 70 % LEAD
ASH = LESS THAN 70 % LEAD

DUST FURNACE

725 LB. AVERAGE
X MOLDS
TOTAL WEIGHT

Cable Strips received_____

Cable Strips processed_____

Floor Cleaning a.m. □ p.m. □

Attachment E

Page 3

REFINERY SHIFT OPERATIONS LOG

DATE:_____ 7 A.M. KETTLE INVENTORY SOFT_____ HARD_____

R1	R2	R3	R4	R5	R6

R7	R8	R9	R10	R11

ALLOY ADDS:
ANTIMONY
ALUMINUM
ARSENIC
COPPER
CADMIUM
CALCIUM
CAUSTIC
LIME
NITER
PHOS
POTASH
SELENIUM
SODIUM
SULFUR
TIN
ZINC
CHARCOAL

LEAD OXIDE USED # OF BAGS

REFINERY DROSS OUT #

Sb SLAG #

RE-MELT HERKY BLOCKS #

RE-MELT – NO SPEC

PE lead Cable Strip Treated in D-1 _____

Floor Cleaning a.m. ☐ p.m. ☐

Tennant Sweeper Truck (optional) a.m. ☐ p.m. ☐

PRODUCTION	Product #	Lot #	Bundles/Blocks	Pieces	Pounds	Tons	Product

Attachment E

Page 4

BLAST FURNACE DAILY LEAD POT REPORT

DATE:_____

DAY SHIFT (TIME)	NIGHT SHIFT (TIME)
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____
11. _____	11. _____
12. _____	12. _____
13. _____	13. _____
14. _____	14. _____
15. _____	15. _____
16. _____	16. _____
17. _____	17. _____
18. _____	18. _____
19. _____	19. _____
20. _____	20. _____

Floor Cleaning a.m. □ p.m. □

Attachment E

Page 5

REVERB CHECK LIST TO BE PERFORMED EACH SHIFT

DATE:_____ TIME INITIALS

1. CHECK BOLTS IN WEIGHFEEDERS & HYDRAULIC LEVELS	1.	1.
2. CHECK BOLTS IN STORAGE BINS & HYDRAULIC LEVELS	2.	2.
3. CHECK FEED OVERFLOW CHUTE ON MAIN FEEDSCREW	3.	3.
4. CLEAN AND CHECK SONIC SPRAYS	4.	4.
5. CLEAN ELBOW ON SONIC DUCT	5.	5.
6. CLEAN DROP CHUTES ON SONIC DAY, ON DAY SHIFT	6.	6.
7. CLEAN THE OLD LOUVER SPOT	7.	7.
8.CHECK OIL LEVELS IN NORTH & SOUTH AIR COMPRESSORS	8.	8.
9. CHECK BAGHOUSE DRAFT & CLEAN BUCKET ELEVATOR AT LEAST 4 TIMES EACH SHIFT	9. ◊ ◊ ◊ ◊	9. ◊ ◊ ◊ ◊

RECORD DROSS PLANT KETTLE TEMPERATURE EVERY 2 HOURS

TIME & TEMPERATURE

DATE:

KETTLE	7:00 A.M.	9:00 A.M.	11:00 A.M.	1:00 P.M.	3:00 P.M.	5:00 P.M.	7:00 P.M.	9:00 P.M.	11:00 P.M.	1:00 A.M.	3:00 A.M.	5:00 A.M.
D-1												
D-2												
D-3												
D-4												
D-5												
INITIALS												

ON D-2 KETTLE STATE YES OR NO FOR FIRE

Floor Cleaning a.m. □ p.m. □

Attachment F
Page 1

MACT

FUGITIVE DUST S.O.P. PLAN

40 CFR-63.545

1. PLANT ROADWAYS

A water-spray truck and sweeper truck will be operated within the installation boundaries on all "active" paved roadways as a means of dust suppression. "Active" refers to roadways whereby continual traffic is incurred due to operating conditions.

Application of both trucks will be conducted during the day workshift period to accommodate the vast majority of plant traffic. During adverse weather conditions, such as ice, snow, rainfall, or other acts of nature, which may prevent and/or supplant the use of water application, the trucks will not be operable. Additionally, during those times when the trucks are taken out of service due to maintenance or safety reasons, the trucks will not be operable. Operation of these units will be documented on the pre-operating safety checklist. The unit numbers are denoted on the pre-operating checklist.

2. BATTERY BREAKING AREA

Wet suppressionapplied to the paste storage section of this building will not be feasible due to the potential for explosion hazards associated with wet feed entering the reverberatory furnace. The battery storage section of this building is maintained in a wet mode continually due to the presence of battery acid on the floor area. The exit ramp of this building is maintained in a constant wet mode from water hose applications when weather conditions permit.

3. FURNACE AREA

Floor cleaning for these areas includes the reverberatory, blast, sweat (wire reclamation), and dust agglomeration furnaces. Cleaning will entail water hose applications twice per day and will be documented on the daily operating forms

4. REFINING/CASTING AREA

These areas, which are adjoining areas, will also utilize water hose applications twice per day. This activity will be documented on the Refinery Shift Operations log. Additionally, on an as needed basis, a portable "Tenant" sweeper truck will be utilized in the area for floor cleaning.

i) MATERIAL STORAGE/HANDLING AREA

Floor cleaning for the BDC receiving dock and RCRA storage areas will involve use of a portable "Tenant" sweeper truck twice per day. Operation of this unit will be documented on the pre-operating safety checklist . The blast furnace feed building will met the definition of partial enclosure and utilize a vehicle wash at the exit point of the building. As the vehicle wash will be a continual flowing system upon exit from the building, record keeping for this activity should not be warranted.

Record keeping required under the "Fugitive Dust S.O.P. Plan will be initiated through either the operating records for the respective areas or the pre-shift safety inspection forms. Record keeping will be completed by each responsible area, and records will be maintained in those areas or through the facility maintenance planner.

Attachment F

Page 2

PRE-OPERATING CHECKLIST FOR SELF-PROPELLED EQUIPMENT
REFERENCE OSHA STANDARD 1910.178(7)

Date:_____ Location:_____ Shift:_____
Type of Unit: _____ Unit # FS0158 Hour Meter:_____

NA	BO	OK	WALK AROUND VISUAL INSPECTION	MAINTENANCE ACTION
_____	_____	_____	Inspect for oil/fuel/water/brake fluid leaks	_____
_____	_____	_____	Check engine comp/hyd oil line guards in place	_____
_____	_____	_____	Ensure all belts are in place	_____
_____	_____	_____	Check air cleaner(s) for external damage and element for cleanliness	_____
_____	_____	_____	Check radiator fins/fan for dirt or trash	_____
_____	_____	_____	Check all pins and bushings (cylinders etc.)	_____
_____	_____	_____	Check tires, lugs and rims	_____
_____	_____	_____	Cutting edges	_____
			BEFORE STARTING ENGINE CHECK THE FOLLOWING:	
_____	_____	_____	Fire extinguisher for serviceability	_____
_____	_____	_____	Engine oil level (fill if necessary)	_____
_____	_____	_____	Hydraulic system oil level (fill if necessary)	_____
_____	_____	_____	Transmission fluid level (fill if necessary)	_____
_____	_____	_____	Cooling system water level (fill if necessary)	_____
_____	_____	_____	Cab and cab components condition	_____
_____	_____	_____	Glass visibility	_____
_____	_____	_____	Fuel supply (fill if necessary)	_____
			WHEN STARTING ENGINE DO NOT ACCELERATE TO GOVERNED SPEED OR LOAD ENGINE FOR TWO MINUTES. CHECK THE FOLLOWING WHILE THE ENGINE IS WARMING:	
_____	_____	_____	Engine oil pressure	_____
_____	_____	_____	Electrical charging system	_____
_____	_____	_____	Air pressure	_____
_____	_____	_____	Engine temperature	_____
_____	_____	_____	Torque converter temperature	_____
_____	_____	_____	All control levers	_____
_____	_____	_____	For unusual engine or drive train noises	_____
			SAFETY INSPECTION – CHECK OR TEST THE FOLLOWING:	
			FOR ANY ITEMS BELOW CHECKED BO, EQUIPMENT MUST BE IMMEDIATELY TAKEN TO THE GARAGE AND TAGGED OUT	
_____	_____	_____	Check all lights	_____
_____	_____	_____	Check all steps, ladders and hand rails	_____
_____	_____	_____	Check all doors, mirrors and glass for breakage	_____
_____	_____	_____	Windshield wiper operation	_____
_____	_____	_____	Bed down indicator	_____
_____	_____	_____	Seat belts	_____
_____	_____	_____	Horn	_____
_____	_____	_____	Parking brake (Must hold on incline)	_____
_____	_____	_____	Wheel chock on unit (when unit is parked on any incline without operator at controls – Chock Must Be Used)	_____
_____	_____	_____	Service brake (Must stop in 5 ft. @ 3 mph)	_____
_____	_____	_____	Backup alarm	_____
_____	_____	_____	Steering	_____
_____	_____	_____		_____

COMMENTS: FS0158 – Tennant Truck Sweeper_____

Operator's Signature_____

Attachment F

Page 3

PRE-OPERATING CHECKLIST FOR SELF-PROPELLED EQUIPMENT
REFERENCE OSHA STANDARD 1910.178(7)

Date:_____ Location:_____ Shift:_____
Type of Unit: _____ Unit # FS0248/ FS0249/ FS0252 Hour Meter:_____

NA	BO	OK	WALK AROUND VISUAL INSPECTION	MAINTENANCE ACTION
_____	_____	_____	Inspect for oil/fuel/water/brake fluid leaks	_____
_____	_____	_____	Check engine comp/hyd oil line guards in place	_____
_____	_____	_____	Ensure all belts are in place	_____
_____	_____	_____	Check air cleaner(s) for external damage and element for cleanliness	_____
_____	_____	_____	Check radiator fins/fan for dirt or trash	_____
_____	_____	_____	Check all pins and bushings (cylinders etc.)	_____
_____	_____	_____	Check tires, lugs and rims	_____
_____	_____	_____	Cutting edges	_____
			BEFORE STARTING ENGINE CHECK THE FOLLOWING:	
_____	_____	_____	Fire extinguisher for serviceability	_____
_____	_____	_____	Engine oil level (fill if necessary)	_____
_____	_____	_____	Hydraulic system oil level (fill if necessary)	_____
_____	_____	_____	Transmission fluid level (fill if necessary)	_____
_____	_____	_____	Cooling system water level (fill if necessary)	_____
_____	_____	_____	Cab and cab components condition	_____
_____	_____	_____	Glass visibility	_____
_____	_____	_____	Fuel supply (fill if necessary)	_____
			WHEN STARTING ENGINE DO NOT ACCELERATE TO GOVERNED SPEED OR LOAD ENGINE FOR TWO MINUTES. CHECK THE FOLLOWING WHILE THE ENGINE IS WARMING:	
_____	_____	_____	Engine oil pressure	_____
_____	_____	_____	Electrical charging system	_____
_____	_____	_____	Air pressure	_____
_____	_____	_____	Engine temperature	_____
_____	_____	_____	Torque converter temperature	_____
_____	_____	_____	All control levers	_____
_____	_____	_____	For unusual engine or drive train noises	_____
			SAFETY INSPECTION – CHECK OR TEST THE FOLLOWING:	
			FOR ANY ITEMS BELOW CHECKED BO, EQUIPMENT MUST BE IMMEDIATELY TAKEN TO THE GARAGE AND TAGGED OUT	
_____	_____	_____	Check all lights	_____
_____	_____	_____	Check all steps, ladders and hand rails	_____
_____	_____	_____	Check all doors, mirrors and glass for breakage	_____
_____	_____	_____	Windshield wiper operation	_____
_____	_____	_____	Bed down indicator	_____
_____	_____	_____	Seat belts	_____
_____	_____	_____	Horn	_____
_____	_____	_____	Parking brake (Must hold on incline)	_____
_____	_____	_____	Wheel chock on unit (when unit is parked on any incline without operator at controls – Chock Must Be Used)	_____
_____	_____	_____	Service brake (Must stop in 5 ft. @ 3 mph)	_____
_____	_____	_____	Backup alarm	_____
_____	_____	_____	Steering	_____
_____	_____	_____		_____

COMMENTS: FS0248 – Tennant Truck Sweeper, FS)249 - Johnson Sweeper Truck, FS0252 – Water Truck_____

Operator's Signature_____

Attachment G

Work Practice Manual

Page 1

Purpose, Use and Change

- This manual is written to comply with the Missouri Air Conservation Commission Rule 10 CSR 10-6.120(3)(B)1., which requires that:

  The owner or operator shall prepare, submit for approval, and then implement a process and area-specific work practice manual that will apply to locations of fugitive lead emissions at the installation;
- and 10 CSR 10-6.120(3)(B)2., which requires that:

  The manual shall be the method of determining compliance with the provisions of this subsection. Failure to adhere to the work practices in the manual shall be a violation of this rule.
- Any change in the work practices manual requires prior written approval from the DNR director before any change becomes effective and goes into practice.

Action to Prevent Excess Process Emissions

- Definitions:

  Accumulated materials: lead bearing particulate that has the potential to become easily re-entrained.
  Hose Down: to wet or reduce accumulated materials.
  Wetting: sufficient water to be used to insure no visible emission immediately following hose down.
- The following schedule of areas and frequencies of hose down to wet or reduce accumulated materials will be implemented. Hose down is to be practiced within the limits of protection of the employee from electrical shock and or protection of the equipment from electrical shorting.

BLAST FURNACE

- The blast furnace feed floor operator will hose down the feed floor areas north and south of the charging slots once per shift on a daily basis to wet or reduce accumulated material during furnace operations.
- The floor area in front of the blast furnace is to be hosed down once per shift on a daily basis to wet or reduce accumulated material during furnace operations.
- Hose down will not be performed when weather conditions prohibit such activity due to slipping hazards created by ice formation or glazing of surfaces. These conditions can exist when the temperature is less than 35 degrees F. or whenever the application of water results in the formation of ice, which could result in injury to personnel.
- The department operating log will be used to record cleaning activities. Area personnel will record the date and the shift during which the work was performed.

REFINERY

- Refinery dock floor will utilize a floor sweeper once per shift on a daily basis to reduce accumulated material.
- Refinery department will hose down the kettle floor daily to reduce accumulated material.
- Hose down will not be performed when weather conditions prohibit such activity due to slipping hazards created by ice formation or glazing of surfaces. These conditions can exist when the temperature is less than 35 degrees F. or whenever the application of water results in the formation of ice, which could result in injury to personnel.
- The department operating log will be used to record cleaning activities. Area personnel will record the date and the shift during which the work was performed.

MAIN BAGHOUSE

- The main stack baghouse will use a screw conveyor to move captured dust back to the reverberatory and/or blast furnace for recycling purposes. Additionally, a dust agglomeration furnace will be utilized to smelt accumulated dust from the system via feed hopper and conveyor.
- The concrete floor beneath the baghouse will be hosed down on a weekly basis to wet or reduce accumulated material.

Attachment G

Page 2

- Hose down will not be performed when weather conditions prohibit such activity due to slipping hazards created by ice formation or glazing of surfaces. These conditions can exist when the temperature is less than 35 degrees F. or whenever the application of water results in the formation of ice, which could result in injury to personnel.
- The department operating log will be used to record cleaning activities. Area personnel will record the date and the shift during which the work was performed.

YARD

- Water truck and sweeper truck will wet and sweep those areas of plant that are accessible by the equipment on a daily basis (Monday through Friday schedule). See Appendix A.2, plant layout, for water/sweeper trucks in the 2000 revision of the Missouri State SIP for the Doe Run Resource Recycling Facility.
- Truck watering may be suspended during any period when the temperature is less than 35 degrees F, or whenever the application of water results in the formation of ice, which could result in injury to personnel.
- The department operating log will be used to record cleaning activities. Area personnel will record the date and the shift during which the work was performed.

BATTERY BREAKING AREA

- Sweeper truck will sweep those areas of the Battery Breaking Area that are accessible by the equipment once per shift on a daily basis. (Monday through Friday schedule.
- The department operating log will be used to record cleaning activities. Area personnel will record the date and the shift during which the work was performed.

RECORD KEEPING-GENERAL

- Records will be maintained of regularly scheduled quarterly inspections made by the environmental department of fugitive emissions such as hoods, air ducts and exhaust fans.
- The daily operating logs will be used to document watering/cleaning activities. Additionally daily pre-shift safety inspections on mobile equipment used in these activities will serve as part of the record keeping function. Records will be maintained in the office of the maintenance schedule planner.
- Any suspension of work practices (i.e. due to weather conditions) will also be noted in the operating logs.

SUSPENSION OF WORK PRACTICES

- Adverse Weather

  The work practices that use the application of water as described herein may be suspended whenever the application of water results in the formation of ice, which could result in injury to plant personnel.
- Equipment Maintenance and Repair

  Sweeping and application of water may also be suspended during those periods necessary to perform maintenance and repairs of equipment essential to the respective activity. Any maintenance and repair work shall be completed as soon as possible, and upon completion, the respective activity shall be immediately resumed in accordance with the stated practice.
- Suspension of Production Operations

  In the event that department production operations are suspended and shutdown, sweeping and watering applications in the department may be suspended for the duration of such period until normal operations are resumed. Any suspension of work practices (i.e. due to weather conditions) will also be noted in the weekly/monthly records.
- Record Keeping of Suspension of Work Practices

  The department operating log will be used to record any suspension of work practices. The entry shall include the date of suspension, the reason and the date work practice is reinstated.

Attachment G

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VENTILATION SURVEY

- The plant ventilation systems listed and diagramed in the 2000 revision of the Missouri State SIP for the Doe Run Resource Recycling Facility shall be surveyed quarterly.
- All measurements will be compared with previous quarters to determine need for attention.

B.D.C. Ventilation

PT. NO.	Static Pressure	Location	PT. NO.	Static Pressure	Location
1	_____	Scrubber Stack	9	_____	FS-8330 Solution Tank
2	_____	Scrubber Inlet	10	_____	FS-8340 Desul. Tank
3	_____	FS-8235 Hydro Separator	11	_____	FS-8345 Desul. Tank
4	_____	FS-8215 Scrap Mill	12	_____	FS-8355 Filtrate Tank
5	_____	FS-8210 Belt Conveyor	13	_____	FS-8350 Filter Press
6	_____	FS-8200 Feed Hopper	14	_____	FS-8360 Neut. Reactor
7	_____	FS-8220 Vib. Screen	15	_____	FS-8365 Neut. Reactor
8	_____	FS-8144 Dump Station			

Reverberatory Furnace and Dross Area

PT. NO.	Static Pressure	Location	PT. NO.	Static Pressure	Location
1	_____	FS-5832 Duct outlet	11	_____	FS-3857 Weigh Screw Feeder
2	_____	FS-5832 Duct Inlet	12	_____	FS-3854 Bin
3	_____	FS-3300 Kettle	13	_____	FS-3310 Kettle
4	_____	FS-3301 Kettle	14	_____	FS-3883 Lead Launder
5	_____	FS-3884 Slag Tap	15	_____	FS-3885 Lead Tap
6	_____	FS-3884 Slag Launder	16	_____	FS-3885 Reverb Furn Rabble Door
7	_____	FS-3887 Slag Caster	17	_____	FS-3311 Kettle
8	_____	FS-3866 Coke Charge Balance Bin	18	_____	FS-3302 Kettle
9	_____	FS-3857 Weigh Screw Feeder	19	_____	FS-3874 Ram Feeder
10	_____	FS-3880 Weigh Screw Feeder	20	_____	FS-3873 Ram Feeder

Attachment G

Page 4

Refinery Area-West

PT. NO.	Static Pressure	Location	PT. NO.	Static Pressure	Location
1	_____	FS-5872 Duct Outlet	6	_____	FS-4012 Kettle
2	_____	FS-5872 Duct Inlet	7	_____	FS-4010 Kettle
3	_____	FS-4840 Dross Dumping Station	8	_____	FS-4820 Rotary Melter
4	_____	FS-4011 Kettle	9	_____	FS-4810 Head Chute
5	_____	FS-4000 Kettle	10	_____	FS-4820 Discharge Hood

Refinery Area - East

PT. NO.	Static Pressure	Location	PT. NO.	Static Pressure	Location
1	_____	FS-5870 Duct Outlet	7	_____	FS-4048 Kettle
2	_____	FS-5870 Duct Inlet	8	_____	FS-4046 Kettle
3	_____	FS-4030 Kettle	9	_____	FS-4044 Kettle
4	_____	FS-4020 Kettle	10	_____	FS-4080 1 Ton Casting Mach. Pivot Pt.
5	_____	FS-4041 Kettle	11	_____	FS-4080 1 Ton Casting Machine
6	_____	FS-4040 Kettle			

CAPITAL CONSTRUCTION PROJECTS

1. Prevention of fugitive dust shall be a consideration in the planning of construction projects.

2. Where feasible, old building components will be cleaned by either vacuum or water hose prior to removal. Additional power washing may be performed, once the component has been removed to an area where electrical shock or shorting of existing equipment can be avoided.

3. Where feasible, in-house water and sweeper trucks shall be used during construction projects to address dirt disturbed by trucks.

4. Water hoses/water sprays shall be used to address potential dust emissions during excavations should specific site conditions require such use.

5. Excavated materials shall be managed to minimize dust blowing. Examples include wetting with water hoses, surface treatment with dust binders, tarping for small and/or temporary piles and establishment of vegetation for long standing piles.

Attachment H

Scrubber Pressure Drop and Liquid Flow Rate

Date	Hour	Liquid Flow Rate	Pressure Drop	Date	Hour	Liquid Flow Rate	Pressure Drop

Pressure drop and flow rate shall be maintained no lower than 30 % below the values measured during the initial compliance test.

Attachment I

BDC Boiler Daily Propane Usage

Date	Propane Used (gallons)	Date	Propane Used (gallons)	Date	Propane Used (gallons)	Date	Propane Used (gallons)
Total for Month **		Total for Month **		Total for Month **		Total for Month **	

** Transfer total gallons propane combusted in BDC boiler for month to Attachment K

Attachment J

Lead Bullion Production

Month/year	Rotary Smelting Furnace		Reverberatory Furnace		Blast Furnace	
	Monthly Production (tons)	12-month rolling avg. [1] (tons)	Monthly Production (tons)	12-month rolling avg. [2] (tons)	Monthly Production (tons)	12-month rolling avg. [3] (tons)

1 Rotary Smelting Furnace 12-month rolling average lead bullion production limited to 42,150 tons.
2 Reverberatory Furnace 12-month rolling average lead bullion production limited to 60,000 tons.
3 Blast Furnace 12-month rolling average lead bullion production limited to 41,500 tons.

Attachment K

BDC Boiler Propane Usage : From________________ to _______________

Month/Year	Monthly Total (gallons)	12-month Rolling Total (gallons) **	Month/Year	Monthly Total (gallons)	12-month Rolling Total (gallons) **

** Fuel Usage Limited to 2,240,000 gallons 12-month rolling total.

Attachment L

PAGE ONE
This sheet covers the month of _____ in the year _____.
(ONE SHEET PER MONTH, DUPLICATE WHEN NEEDED)

Equipment/ Process NOTE 1	PM_{10} Emissions (tons) NOTE 2	SO_x Emissions (tons) NOTE 2	NO_x Emissions (tons) NOTE 2	VOC Emissions (tons) NOTE 2	CO Emissions (tons) NOTE 2	Pb Emissions (tons) NOTE 2	H_2S Emissions (tons) NOTE 2	HAPS Emissions (tons) NOTE 2
Monthly Total (tons) NOTE 3								
Rolling 12-month total (tons) NOTE 4								

NOTES
1 Equipment/processes listed in Condition 1. of (EU0160 and EU0170)-002
2 Please provide sample calculations on page provided including emission factors and any control efficiency.
3 Summation of columns.
4 Rolling 12-month total not to exceed de minimis levels.

Attachment L

PAGE TWO

HAPs Compliance Worksheet

Rolling Monthly COMBINED HAPs Emissions

This sheet covers the 12-month period:
Beginning _____ (month, day, year) and Ending _____ (month, day, year)
(ONE SHEET PER 12-MONTH PERIOD, DUPLICATED WHEN NEEDED)

COLUMN A	COLUMN B
(a) 12-Month Period	(b) Monthly HAPS Emissions
Month 1: Beginning Month From Above	
Month 2:	
Month 3:	
Month 4:	
Month 5:	
Month 6:	
Month 7:	
Month 8:	
Month 9:	
Month 10:	
Month 11:	
Month 12: Ending Month From Above	
TOTAL Consecutive 12-Month HAPs Emissions (tons)	(c)

(a) Fill in corresponding month name next to month number.
(b) Monthly HAPs emissions calculated from page four.
(c) Summation of [COLUMN B], limited to less than 25 tons.

Attachment L

PAGE THREE

HAPs Worksheet

Rolling Monthly **Single** HAP Emissions

This sheet covers the 12-month period:
Beginning _____(month, day, year) and Ending _____(month, day, year)
(ONE SHEET PER 12-MONTH PERIOD, DUPLICATED WHEN NEEDED)
THIS WORKSHEET PERTAINS TO: HAP NAME CAS#

COLUMN A	COLUMN B
(a) 12-Month Period	(b) Monthly Single HAP Emissions
Month 1: Beginning Month From Above	
Month 2:	
Month 3:	
Month 4:	
Month 5:	
Month 6:	
Month 7:	
Month 8:	
Month 9:	
Month 10:	
Month 11:	
Month 12: Ending Month From Above	
TOTAL Consecutive 12-Month HAP Emissions (tons)	(c)

(a) Fill in corresponding month name next to month number.
(b) Monthly HAPs emissions calculated from page four.
(c) Summation of [COLUMN B], limited to less than 10 tons.

Attachment L

PAGE FOUR

HAPs Compliance Worksheet

Entire Installation HAPs Emissions Calculations

This sheet covers the month of _________ in the year ______.

(ONE SHEET PER MONTH, DUPLICATE WHEN NEEDED)

Month Number ____ .

(1 for first month, 2 for second month, etc.)

COLUMN A	COLUMN B (a)	COLUMN C (b)	COLUMN D (b)	COLUMN E (b)	COLUMN F (b)	COLUMN G
Material Used (name, type)	Amount Used (include units)	Individual HAP Contained in Material	CAS #	Density of Material (lb/gal)	Individual HAP Content (% weight)	HAP Emission (tons)
					(c) Total HAPs Emissions This Month (tons)	

(a) Instructions:

If the material usage is reported in pounds:
[COLUMN B] x [COLUMN F] x [0.0005] = [COLUMN G]
If the material usage is reported in tons:
[COLUMN B] x [COLUMN F] = [COLUMN G]
If the material usage is reported in gallons
[COLUMN B] x [COLUMN E] x [COLUMN F] x [0.0005] = [COLUMN G]

(b) See Material Data Safety Sheets (MSDS)

(c) Summation of [COLUMN G] for this Month. Report Value to PAGE TWO

Attachment M

Emergency Water Pump Operating Hours Compliance Demonstration

Date/Month	Monthly Hours of Water Pump Operations	12-Month Total Operating Hours

STATEMENT OF BASIS

Permit Reference Documents
These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1) Part 70 Operating Permit Application, received May 13, 1997; revised May 24, 2002
2) 2001 Emissions Inventory Questionnaire, received March 31, 2002;
3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits
In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants.
This rule has been included in the operating permit in order to provide citing for the allowance of requests for emissions data results. On past forms issued by the Air Pollution Control Program, including the application for this permit, it was automatically marked as an administrative rule not required to be listed as an applicable requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit.

10 CSR 10-6.120, Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations.
This rule was not included in the application because the installation had ceased to be a primary lead smelter. However, the rule was changed to include the Doe Run – Buick Resource Recycling Division's 1998 and ongoing lead producing operations. Therefore, the rule is included in the permit.

Other Air Regulations Determined Not to Apply to the Operating Permit
The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.240, Asbestos Abatement Projects-Registration, Notification and Performance Requirements
This rule was marked as applicable in the operating permit application. However, the court has voided the rule and it has not been placed in the permit

40 CFR part 60, subpart Kb, Standards of Performance for Volatile Organic liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.
This rule is not applicable to the No.2 diesel oil or the gasoline storage tanks, as their capacity is less than 40 cubic meters.
This rule is not applicable to the six, 30,000 gallon liquid propane storage tanks, as the subpart does not apply to pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

40 CFR part 60, subpart LL, Standards of Performance for Metallic Mineral Processing Plants.
This rule is not applicable because the installation does not produce metallic concentrates from ore.

40 CFR part 63, subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.

This rule is not applicable to the cooling towers, as they have never been operated with chromium-based water treatment chemicals.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

Construction Permit No. 0989-003A

Condition 4. required the permittee to permanently shutdown and render non-operational the silver retort operation. This condition was not placed in the permit as the silver retort operation has been removed from the installation.

Condition 8a. This condition required the recording of monthly and consecutive 12-month production of lead bullion, segregated by whether the feed type was a primary or secondary source. In 1998, the MACC adopted an amendment to 10 CSR 10-6.120, *Restrictions of Emissions of Lead from Specific Lead Smelter-Refinery Installations*. This revision reflected that the Doe Run Resource Recycling Facility was a secondary lead smelter only.

Condition 8a. was changed to require the record keeping of lead bullion production from the rotary smelter, reverberatory and blast furnaces on a monthly and 12-consecutive months basis.

Condition 8b. This condition required reporting to the APCP at the end of each month, if the 12-month cumulative total of lead bullion production from the reverberatory or blast furnaces exceeded the limits of Conditions 7 and 8.

Condition 8b. was changed by including the rotary smelting furnace and the limit of Condition 6.

Construction Permit No. 1095-009

Condition 2. This condition required performance testing of the agglomeration furnace. The testing was completed on 6/19/96 and the furnace was in compliance with the 40 CFR part 60, subpart L emission limits for particulate and opacity. The agglomeration furnace process emissions normally combine with all the other furnaces exhaust through the main baghouse, CD9. There is no need to test the agglomeration furnace separately as the CD9 exhaust is tested at least every two years. Therefore, Condition 2. was not placed in the permit.

Construction Permit No. 0693-013

This permit for the construction of sweat furnace I, and the mold pouring station contained no special conditions. Therefore, there was no need to assign it a permit condition in the operating permit.

Construction Permit No. 1093-003

This permit for the construction of a washing station contained no special conditions. Therefore, there was no need to assign it a permit condition in the operating permit.

Construction Permit No. 0297-015 and 015A

Conditions 3. through 10. for emission limitations and Conditions 11. through 18. for record keeping were superceded by Construction Permit No. 0997-006 [(EU0160 and EU0170)-002]. Therefore, the conditions were not placed in the permit.

NSPS Applicability

40 CFR part 60 subpart L, *Standards of Performance for Secondary Lead Smelters*.

The provisions of this subpart apply to pot furnaces of more than 550 lb charging capacity, blast furnaces, and reverberatory furnaces at secondary lead smelters that commenced construction or modification after June 11, 1973.

40 CFR part 60, subpart Dc, *Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units*.

This subpart applies to the BDC boiler.

MACT Applicability

40 CFR part 63, subpart X, *National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting.*

The provisions of this subpart apply to the blast, reverberatory, and rotary smelting furnaces; refining kettles; agglomerating furnace; process fugitive sources; and fugitive dust sources at this secondary lead smelting installation.

The standard operating procedures manual for baghouses required by § 63.548(a) in Permit Condition PW004 was submitted to the APCP on July 22, 1997.

Section 2.of the Attorney General Settlement Agreement dated 3/31/2000 requires Doe Run to reconfigure the THC gas sampling train to properly measure blast furnace THC emissions to meet the requirements of 40 CFR 63.543; and to design and construct a "global capture" system for all process fugitives at the facility, as required by 40 CFR 63.544.

The required enclosures and baghouses CD25, CD26 and CD27 controlling process fugitive emissions from the reclamation furnaces, rotary melter and the reverberatory furnaces have been installed, but are not in compliance with Subpart X. §63.548(C)(9) requires process fugitive baghouses to have a continuous operating leak detection system, §63.548(C)(1) requires all baghouses to have pressure drop measuring instrumentation and daily recording of the pressure drops, and §63.548(a) requires a standard operating procedures manual for the baghouses. The permittee has been notified to submit a Compliance Plan covering the required corrective measures that are to be completed by July 1, 2004.

The permittee has elected to comply with the total hydrocarbon standard in § 63.543(d) by complying with the requirements of § 63.548(j)(2) and the reporting of § 63.550(C)(ii). Therefore, the requirements of § 63.548(j)(1) and § 63.550(C)(1) are not in the permit.

The permittee received a one year extension to December 23, 1998 for compliance with the requirements of 40 CFR part 63, subpart X. Initial compliance stack testing for lead and total hydrocarbon emissions were performed on July 1, 1998 and indicated compliance with subpart X.

Dryer transition pieces § 63.544(a)(5) were not listed in Permit Condition (EU0230 through EU0290)-001, because the installation does not utilize a dryer in their processes.

The standard operating procedures manual for the control of fugitive dust emissions required by § 63.545(a) was received July 8, 1997.

40 CFR part 63, subpart B, *Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j)*

The permittee is a major source of HAPs and appears to be subject to the subpart category to be regulated by subpart DDDDD, Industrial/Commercial/Institutional Boilers. Doe Run-Buick RRF submitted a Part 1 notification for 112(j) on May 10, 2002. According to the May 30, 2003, Final Rule, if EPA fails to promulgate subpart DDDDD, then Doe Run-Buick RRF must submit a Significant Permit Modification with a Part 2 application by April 28, 2004.

40 CFR part 63, subpart DDDDD, *Industrial/Commercial/Institutional Boilers & Process Heaters*

It is believed that the permittee has the potential to be affected by the future standard. We recommend that the permittee keep up to date with the MACT promulgation of subpart DDDDD and make modifications to their current operating lines and operating permit if subpart DDDDD covers units at the installation in the applicability section of the standard. If EPA fails to promulgate subpart DDDDD prior to April 28, 2004, the installation is required to submit a Significant Permit Modification with a Part 2 – 112(j) application.

NESHAP Applicability

This installation is subject to 40 CFR Part 61, subpart M. *National Emission Standard for Asbestos*

Compliance Assurance Monitoring (CAM) Applicability

The Doe Run Buick Resource Recovery Facility submitted the Part 70 operating permit application prior to the April 20, 1998 promulgation date of the CAM rule. Therefore, the installation is not required to implement CAM in the initial Part 70 operating permit, but it will be applicable upon permit renewal.

Other Regulatory Determinations

The blast furnace at this secondary lead smelter is not considered to be collocated with the reverberatory furnace. It is a stand-alone blast furnace by definition, because the volumetric flow rate discharged from the blast furnace is greater than that discharged from the reverberatory furnace. (§63.542)

Missouri Air Conservation Commission Order dated September 25, 2003, approving a variance request to increase the reverberatory furnace lead production from 60,000 tons to 85,000 tons for the year 2003.

The Compliance Plan also requires the installation and operation of pressure drop instrumentation for Baghouses CD11, CD13, CD14, CD15, CD17, and CD21 by July 1, 2004.

Calculations

10 CSR 10-6.400

(EU0010 through EU0220), Limits = 403.95 lb PM/hr and 0.30 gr/dscf; Emissions from stack tests:

7/01/1998	11.28 lb PM/hr, concentration = 0.00440 gr/dscf
2/20/2000	12.42 lb PM/hr, concentration = 0.00448 gr/dscf
2/20/2001	12.46 lb PM/hr, concentration = 0.00444 gr/dscf

EU0310, Limit = 251.25 lb PM/hr, Emissions = 180.7 ton/hr x 0.05208 lb PM/ton x (1-0.98) = 0.188 lb PM/hr
Concentration = [0.188 lb/hr x 7000 gr/lb]/[26,900 scfm x 60 min/hr] = 0.0008 gr/scf

EU0350, Limit = 30.5 lb PM/hr, Emissions = 20 ton/hr x 0.24 lb PM/ton x (1-0.99) = 0.048 lb PM/hr
Concentration = [0.048 lb PM/hr x 7000 gr/lb]/[400 scfm x 60 min/hr] = 0.014 gr/scf

EU0360, Limit = 42.5 lb PM/hr, Emissions = 40 ton/hr x 0.002 lb/ton x (1-0.5) = 0.04 lb PM/hr
Concentration = [0.04 lb PM/hr x 7000 gr/lb]/1067 scf/hr = 0.26 gr/dscf

EU0370, Limit = 22.5 lb PM/hr, Emissions = (8 ton/hr + 4.7 ton/hr) x 7.78 ton x (1-0.995) = 0.494 lb PM/hr
Concentration = [0.494 lb PM/hr x 7000 gr/lb]/[400 scfm x 60 min/hr] = 0.144gr/scf

EU0380, Limit = 16.5 lb PM/hr, Emissions = 8 ton/hr x 7.78 lb PM/ton x (1-0.995) = 0.311 lb PM/hr
Concentration = [0.311 lb PM/hr x 7000 gr/lb]/[400 scfm x 60 min/hr] = 0.091 gr/scf

EU0390, Limit = 15.1 lb PM/hr, Emissions = 7 ton/hr x 84 lb/ton x (1-0.995) = 2.94 lb PM/hr
Concentration = [2.94 lb PM/hr x 7000 gr/lb]/[10,000 cfm x 60 min/hr] = 0.0343 gr/scf

EU0420, Limit = 31.5 lb PM/hr, Emissions = 21 ton/hr x 1.65 lb PM/ton x (1-0.998) = 0.0693 lb PM/hr
Concentration = [0.0693 lb PM/hr x 7000 gr/lb]/[25,000 scfm x 60 min/hr] = 0.00032 gr/scf

10 CSR 10-3.060

EU0410 DC Boiler (1991) = 40.6 MMBtu/hr Allowed PM rate = $1.31 \times 114^{-0.338}$ = 0.26 lb PM/MMBtu
EU0420 Refinery Kettles (1967) = 74.4 MMBtu/hr Allowed PM rate = $0.90 \times 114^{-0.174}$ = 0.39 lb PM/MMBtu
Total Q = 114.0 MMBtu/hr

AP-42 PM emission factor for liquid propane = 0.6 lb PM/10^3 gallons, Heat Value = 91.5 MMBtu/10^3 gallons
PM emissions from combusting liquid propane = 0.6 lb PM/ 91.5 MMBtu = 0.0066 lb PM/MMBtu

10 CSR 10-6.260

EU0410 BDC Boiler (1991), Limit = 8 lbs SO_2/MMBtu
AP-42 SO_2 emission factor for liquid propane = 0.016 lb SO_2/10^3 gallons, Heat Value = 91.5 MMBtu/10^3 gal
SO_2 emissions from combusting liquid propane = 0.016 lb SO_2/ 91.5 MMBtu = 0.0002 lbs SO_2/MMBtu

Plant Wide Limit = 8650 lbs SO_2/hr
Main B/H emits 99% of sulfur emissions, SO_2 Limit = < 500 ppmv SO_2, Maximum Flow = 350,000scfm
Maximum Potential SO_2/hr = 499/10^6 x 64/384 x 350,000 x 60 = 1746.5 lb SO_2/hr
SO_2 emissions from battery breaking/storage = 1 % main stack = 17.5 lb SO_2/hr
Potential SO_2 Emissions = 1764 lb/hr

The installation will be in compliance with the 8650 lb SO_2/hr limit when operating < 500 ppmv SO_2

Ambient Impact Sulfur Dioxide Modeling

Modeling done at 4281 lbs SO_2 per hour

Averaging Time	NAAQS Limit ($\mu g/m^3$)	Estimated Ambient Impact ($\mu g/m^3$)
3-hour	1300	469.3
24-hour	365	105.3
Annual	80	8.5

40 CFR Part 60, Subpart L

Equipment	Test Dates	Particulate Matter		Opacity	
		Limit	Results	Limits	Results
Reverberatory & Blast Furnaces only	5/24-5/26 1993	0.022 gr/dscf	0.00374 gr/dscf	< 20 %	< 5 %
Agglomerating Furnace only	6/19/96	0.022 gr/dscf	0.015 gr/dscf	< 10 %	5 %
Reclamation Furnaces, Refining Kettles and all other EU8 sources	2/20/01	0.022 gr/dscf	0.00448 gr/dscf	< 10 %	5 %

40 CFR Part 63, Subpart X

CD-Stack	Test Dates	Lead (gr/dscf)		Hydrocarbons (ppmv)	
		Limit	Results	Limit	Results
9	7/1/98	0.00087	0.000400	360	225
9	3/23/00	0.00087	0.000813		
9	5/8/01	0.00087	0.000373		
9	4/23/03	0.00087	0.000606		

10 CSR 10-6.120

Lead emissions from the Main Stack are limited to 540 lbs/24 hours

Using the lead limit from 40 CFR part 63, subpart X of 0.00087 gr/dscf and stack flow of 350,000 dscfm
Lead emissions = (0.00087 gr/dscf x 350,000 dscfm x 60 min/hr x 24 hr)/7000 gr/lb = 62.64 lb lead/24 hrs

The installation will be in compliance with 10-6.120 as long as it is in compliance with Part 63, Subpart X

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis
Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Prepared by:

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